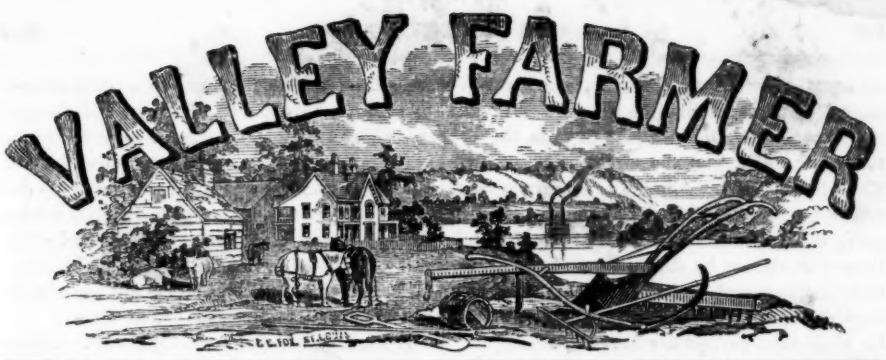

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ALTERNATION OF CROPS.

That a regular and systematic rotation of farm crops is absolutely necessary to secure the permanent fertility of the soil, and to afford to the husbandman the most profitable returns, we think can be clearly established, not only by the experience of the best farmers in this country and more particularly in Europe, but by the operations of nature herself.

It was not until about the middle of the last century, that the importance of a scientific rotation of crops began to attract the attention of farmers. Arthur Young, one of the most popular and close observers, among the British farmers, saw the importance of this difficult question in its true light; he very correctly told the farmers of his day, that whenever very good or very bad husbandry is found on arable land, it is more the result of a right or wrong arrangement of crops than of any other circumstance. More accurate and more generally diffused observations have long since led the present race of cultivators to establish a more correct theory in regard to this subject.

We need not go from our own country to find the most lamentable instances of reckless disregard of the correct system of alternation; the evidences are too palpable in all the older States of this Union. Look, for instance, at Maryland, Virginia, the Carolinas and other neighboring States, in which corn, tobacco and cotton, for fifty years or more, have been the leading crops and allowed to follow the same in annual succession upon the same lands until the returns were no longer adequate to sustain their rapidly diminishing population. Look again at some of these lands which have been abandoned by their former proprietors and purchased by a more intelligent class of cultivators, who have adopted a system of rotation and manuring, and we find them so far renovated and restored under the present system of improved and deep tillage as to yield even larger crops than when they were first subdued from the original forests. We regret, however, to say that this improved system in its greatest perfection is yet carried on by but comparatively few of the great mass of farmers in our land.

In regard to the general principles on which the proper cropping of land depends, it is now perfectly understood that some kinds of crops deteriorate or exhaust the land to a much greater degree than others; that some, by their capability of being consumed on the farm, (though they do exhaust the soil,) return in such consumption by the farm stock, as much and perhaps more to the soil, than they draw from it during the period of their growth. And again, that other crops, by admitting of profitable tillage and cleansing the land during their cultivation and growth, aid very much in the essential destruction of weeds, insects, &c., and in ameliorating the land for the succeeding crop; while on the other hand, different crops, by not permitting such cultivation, and being great exhausters when followed in immediate and annual succession, not only deteriorate the soil, but fill it with weeds and grubs. In the man-

agement of rotations, however, much careful attention and discrimination are requisite in the cultivator to profitably adapt them to the nature of the soil, and the circumstances under which he is placed. Above all, the farmer must remember that, as different kinds of plants require different kinds and proportions of nutritious materials to be drawn from the earth for their increase and perfect growth, so also they need different situations and conditions of soil for their most perfect developement.

Every observing farmer is well aware that certain crops never prosper well two or more seasons together on the same land—that there is a manifest falling off in the product.

Now, it is of primary importance that we should endeavor to understand, if possible, the cause of this phenomenon. This question, therefore, has long engaged not only the attention of the most sagacious farmers, but of many distinguished chemists and philosophers. By these it has been regarded chiefly in two points of view.

First, by an immutable law, nature has provided for each species of plants a specific food, suited to its organization and its wants. Thus some soils will not grow wheat, or other farm crops, although abounding in the common elements of fertility, and although they will make a profitable return in other farm crops, in consequence of their being deficient in the specific food required for the perfection of the wheat, or other particular species of crop.—This is true in regard to wheat in portions of New England and other States, although once particularly productive in this grain. One family or species of plants requires a different food from that which another family or species requires, and it seems to be another law of nature, that what is not essential to one family or species, is particularly adapted to other families or species. It seems to be provided, that where the general fertility of the soil is kept up, the specific food of any class or species continues to accumulate till the return again to the same field of this particular crop. Thus it is supposed to require eight or ten years for the specific food of flax, to accumulate sufficiently for a second crop, after one has been taken from the field. Even the specific food of clover becomes exhausted by a too frequent repetition of it in the same field, it being found necessary on some soils to substitute for it some other crops or grass, so that it may not be repeated oftener than once in six or eight years. There are exceptions to the rules of practice which these laws inculcate. Some soils seem natural to wheat, others to oats or grass, and successive crops of these are sometimes taken without apparent diminution of product, but which cannot always continue. This is undoubtedly owing to a super-abundance of the specific food in the soil which these crops require, and which will ultimately become exhausted. It is, therefore, always better to regulate our practice by general laws than by casual exceptions.

If farmers will but carefully observe the operations of these laws in nature, they will readily see the importance of an established system of alternation of crops. If we notice the grasses in our meadows it will be seen that they are subject to change.

It will, also, often be observed, that after removing certain crops from a field, and that field is allowed to remain uncultivated for a single season, an immense growth of weeds of certain kinds will spring up that had never before occupied the same ground.

The timber trees in the forest alternate—new species springing up as the old ones decay, or are cut down. For instance, in many countries, if the prevailing timber be pine, and is cut off or removed by age and decay, oak will spring up in its place; or, if oak occupy the soil, pine will next succeed, and so of many other varieties. In forests of a more mixed growth, as in Kentucky and some other western States, this change goes on, though from the great variety of timber, it is less apparent and striking.

That the subject may be the more clearly understood, the generality of tillage crops have been reckoned under two heads or classes, differing essentially in their character, culture and exhausting influence upon the soil. These two classes are denominated *culmiferous* crops, and *leguminous* crops. The first is so named from *culm*, the stalk or stem, such as are usually hollow and supporting the leaves and seeds.—This class includes wheat, barley, oats, rye, Indian corn, tobacco, cotton, &c. These are particularly exhausting in the production of their seeds, and hence are sometimes termed "robbers," or exhausters of the soil. If these are cut green, or while they are in blossom, they are far less so.

Leguminous crops, literally, are peas, beans, and other pulse, but here the class is intended to embrace all which are considered ameliorating or enriching crops, as potatoes, turnips, carrots, beets, cabbages and clover. These latter are not only less exhausting than the culmiferous class, as most of them do not mature

their seeds, and all, on account of their broad system of leaves, draw more or less nourishment from the atmosphere, but they improve the condition of the soil by dividing and loosening it with their tap and bulbous roots.—For these reasons they are called ameliorating or enriching crops, and when they receive manure, as they should, and culture after the drill system, they are peculiarly adapted to improve and fit the soil for the culmiferous class of crops. No correct and profitable system of farming, therefore, can be carried on where the culmiferous and leguminous crops do not alternate or follow each other in succession, except when grass is made to intervene, and it matters little which crops are selected from the two classes. But the interest of the farmer will determine this. With us, in the West, clover must be the chief reliance in extensive farming, though potatoes, in some sections, may come in to advantage.

From the character of our crops and their peculiar adaptation to our soil and climate, our system of rotation must necessarily embrace a less number of years, and be the more frequently repeated than in England and other countries of Europe, where Indian corn is not grown, and where the various root crops are so important to successful husbandry, hence the greater necessity with us of adhering to the best system that can be adopted, and bringing in clover or its equival ent, as often as every four or five years. Indian corn, rye, buck wheat, &c., may be sown and turned under, while green, to great advantage, as ameliorating or improving crops, and requiring less frequent repetition of clover.

Second.—In addition to the exhausting nature of certain crops, it is contended by many intelligent cultivators and vegetable physiologists that each plant has certain peculiar excretory matters, which it constantly deposits in the soil in which it is grown—matters which are supposed to be particularly noxious to other plants of its own species—that in consequence, (until these are decomposed and removed from the earth by other plants or by the gradual effects of decomposition,) the same crop cannot advantageously prosper in the same soil. There are numerous facts that seem to go to the support of this doctrine. It is known that water in which plants and other bulbs have been grown will not support other bulbs of the same kinds in a flourishing condition; yet still, that such impure water is found to be more grateful than clear water to vegetables of another species.

We once planted two acres of Ruta baga turnips on a piece of new Kentucky "barrens," of superior quality; the turnips grew well and made a fine crop. The next year the whole field of forty acres was planted with corn; the two acres on which the turnips grew was almost a total failure, the corn throughout the whole season looked yellow and sickly, while the remainder of the field produced an excellent crop. As we have said before, flax cannot be cultivated to advantage on the same land only at intervening periods of several years. Yet from chemical tests neither turnips or flax are regarded as very exhausting crops, but the aversion of the same, or certain other crops to grow immediately on the same soil arises from these excretory matters deposited by the previous crop.

Another fact should be known, and that is, that an orchard of fruit trees will never prosper well on the site of an old orchard of similar fruit. This is true of apples, but more particularly so of peaches. Neither will apple trees flourish so well when rows of peach trees are planted between them. The soil in which peach trees have been grown seems to have a remarkably deleterious effect upon other trees, both of peaches and apples, which we are inclined to attribute mainly to the excretory matters left in the soil by them. Yet there are certain plants and trees well known to be excellent and mutually fertilizing neighbors—a knowledge indeed as old as the days of Rome under her emperors, for at these early periods the Italian farmers commonly planted the elm as the companion or "husband," as they called it, of the vine, and there are other facts of a similar nature that go to corroborate this doctrine.

But more particularly upon the subject of farm crops, we will remark in conclusion that, in order to render the system of alternate husbandry more perfect, it is important to embrace the rearing and feeding of farm stock. Cattle convert the bulky products of the farm into meat, butter, cheese, &c. These concentrated products are carried to market at comparatively trifling expense. Cattle also furnish labor, and manufacture into manure the straw, stalks and other litter of the farm, necessary to keep up its fertility; for our farmers must learn that, without manure, the soil will grow poor, and its products annually diminish. Manures are the main source of fertility to our soils, and the substantial food of our crops. Our supply of these will depend on the amount of stock we feed upon the farm, and the amount of stock we

can keep profitably, will again depend upon the fertility of the soil, and the consequent abundance of its products. So that grain and grass husbandry and cattle husbandry are reciprocally and highly beneficial to each other.

We regret that this subject is not better understood and more generally appreciated than it is in the West. If this system is thoroughly carried out it will yield more *immediate* profits to the farmer, besides adding to the perpetual fertility and value of the soil, as an inheritance to his children.

A MISSOURI FARM.

We recently visited the farm of Mr. Richard Gentry, of Pettis county, Mo., and, as we have frequently seen flattering accounts of large farms, in other States, we have concluded to furnish a description of this farm to our readers in order to show that Missouri is not behind her sister States in large farms or good farming.

The farm of Mr. Gentry contains seven thousand acres of land, three thousand five hundred acres of which are under excellent fence, and in a high state of cultivation. It is divided, chiefly, into lots of forty acres—making over thirty miles of fence on the farm. The fence is mostly made of rails, with stakes and riders, and kept up in the best condition.—There is, however, a mile and a quarter of post and board fence on the farm, and some two miles of Osage Orange hedge, which, however, has not yet been turned out.

There are on the farm sixty-five large gates, of the best construction, and about the same number of draw-bars. The gates and bars are made in a large carpenter shop, in rainy weather, when the hands can be employed at nothing else. All of the implements are put in repair at such times, and many of the simpler ones manufactured. About two-thirds of the farm consists of high, rolling prairie, of an excellent quality of soil, and the remaining third is in timber, immediately adjoining the prairie.

There are fourteen hundred acres of the farm set in blue grass, seven hundred and fifty acres in clover and timothy meadow, three hundred and twenty acres in corn, one hundred and sixty acres in oats, twenty acres in Hungarian millet, and the balance of the farm under fence is in woods pasture.

There are on the farm twenty seven large, artificial ponds, many of them of much depth, affording stock an abundance of water at all seasons of the year. During our visit three stone masons were employed in erecting large stone pillars, in various parts of the farm, at the outlets of streams, in which large water gates were to be hung, so that in case of freshets, which are common on large prairies, the gates would open by the action of the water, and close when the water had passed, and prevent the fence from being washed away, and the escape of stock from one field to another.

One of the most striking features observable is, that on this immense farm, not a single weed is to be seen. Even the fence corners, that common receptacle of all that is foul, on most farms, are as clean of weeds as any city lawn. What do farmers, who have but two or three hundred acres under cultivation, say to this? Here are upwards of thirty miles of fence, without a weed or briar surrounding it, while many farms, with only a mile or two of fence, raise enough weeds to seed the whole neighborhood! The whole farm is a pattern of neatness. The hands pass over every field, as often as it is necessary, and pull every burr, briar and weed that dares to show itself. This has been done for many years until the weeds are subdued.

Mr. Gentry has been a large sheep grower.—Some fifteen years ago finding the market dull for horses and mules he concluded to try sheep. He accordingly procured from Kentucky some 400 head of the best Saxon and Spanish merino ewes, as the foundation for the future flock. These he raised for a number of years, increasing the size of his flock till it ranged for many years from two thousand eight hundred to three thousand head. He went to great expense in procuring the best bucks, and, by judicious management obtained a very superior flock.—For the last four or five years he has been crossing his flock with the French Merino, paying as high as one hundred and fifty dollars per head for the bucks. He has some imported bucks of this breed now on his farm. He thinks the French Merino superior to the Saxony or Spanish Merino, as possessing more constitution, greater weight of carcass, much greater weight of wool, though not of as fine a quality, yet sufficiently so to command as high a price in market. He has had the very best success in raising sheep—his flock has never been affected by any contagious disorders, and many of the diseases so prevalent at the East have been entirely unknown in his herd. He has recently reduced the size of his flock to about 1000 head, for the purpose of giving more attention to raising mules. He is already quite extensively

engaged in this business but intends to give it more prominence hereafter.

There are kept constantly employed on the farm twelve grown hands and six boys. Our readers may wonder how so large a farm can be so well managed by this small number of hands. It was a wonder to us until we saw the perfect system of Mr. Gentry's plans. Every thing moves like clock work. There is a time for every thing and every thing must be done in its time. There is no hurry and flurry—but every thing moves along evenly and quietly.—Each piece of work is attended to till it is done. But system is not the only secret of his success. All of the best labor saving implements and machines are used by him—so that with one man he is able, in many kinds of work, to perform the labor of ten men. By this means he is able to accomplish this vast amount of work.

Mr. Gentry has a number of buildings erected, in which he carries on, for his own use, various operations not common among farmers. For instance, there is a large mill house, where all the meal for the family and stock is ground, and where various other mills and machines are used. There is also a large slaughter house, with kettles set in arches, and an excellent apparatus for rendering out lard. Then there is a tool house, a carpenter shop, a harness house, a shop for making shingles, &c., &c. There is also an excellent pair of Fairbank's cattle scales, which will weigh six tons at each operation, with all the appendages for weighing cattle, sheep, swine, hay, grain, &c.

But the next question is, will farming on such a magnificent scale *pay*? Of course it will.—Any kind of honorable business, managed as well as this farm is, would pay large profits. Upon our inquiry, Mr. Gentry informed us, that the gross receipts from this farm last year amounted to over twenty-seven thousand dollars—(a larger sum than the President of the United States receives annually.)

We return our sincere acknowledgements to Mr. Gentry, for the very polite attentions we received during our visit.

PRODUCTION OF OPIUM IN INDIA.

It is recorded as a matter of fact, that there are one hundred thousand acres of the best land in India, watered by the Ganges, devoted to the production of Opium. The annual value of the crop is set down at $32,000,000, upon which there is a government tax of $5,000,000. It is estimated that China has paid India, within the last fifty years, $400,000,000 for opium, over three hundred per cent of this sum being clear profit. For the continuation of this profitable trade England waged a wicked war with China. It is a lamentable fact that the people of more enlightened nations than the Chinese consume, as a stimulant alone, immense quantities of this poisonous drug.

ABOUT WHEAT.

"Wheat sowed on moist land should be buried deeper than on dry land to protect the roots from being *hove out* by the frost."

So teaches a cotemporary. But will this doctrine bear the light of investigation? Is it in accordance with the practical teachings of reason and common observation? We think not. The reverse is true. If wheat is to be sowed on dry land it should be covered deeper than on wet land, at least so deep as to obtain sufficient moisture to insure germination, and it will bear a much deeper covering of earth, and flourish in it, than if sown on wet land, because with a greater depth of covering on dry land neither *heat* nor *air* are excluded from the seed and roots, as would be the case if covered an equal depth on wet land. If seeds are covered to an undue depth on moist or even dry land the young plants can never get a healthy start and will not grow until an entire new set of roots are formed at just that depth below the surface through which the requisite degree of heat and air is afforded. The subject of *Terra culture*, which has been the theme of a certain *ignoramus*, for years claims only what every intelligent cultivator ought to know—that nature prefers a certain depth for the covering of the seeds and roots of all trees and plants, and any deviation from the proper depth does violence to the plant or tree, which cannot be expected to recover and flourish, until nature, by a slow and tedious process repairs the injury, by furnishing an entire new series of roots, at just that depth below the surface of the soil that will admit of the proper degree of the requisites we have mentioned.

Wheat, sown upon a too moist soil, whether the seed be buried deep or shallow, will throw its roots nearer the surface than when sown upon land more dry, and is the more liable to be "hove out" by the frost, not only because its roots are compelled to seek their place nearer the surface, but because of the greater expansion of the soil, owing to the undue degree of of water that it contains. The only remedy for such land is in thorough draining.

Our text reminds us of similar advice given in the same paper some time since, that peas succeed best when planted ten or twelve inches deep. Agricultural editors should be *practical cultivators.*

THE POTATO ROT.

There are a number of our most important vegetable productions subject to disease as fatal and mysterious as the cholera in the human race. It seems to be generally considered that these diseases, both in the animal and vegetable tribes prevail through the medium of the atmosphere—beyond this nothing definite is known. A thousand theories, respecting the cause of these maladies have been advanced and as many remedies have been proposed, yet nothing reliable as to either the cause or remedy has been brought to light, although the great extent to which the potato rot prevailed in Ireland a few years ago, and the famine and distress which followed among the inhabitants in consequence, called forth the most thorough investigation among the distinguished agriculturalists, agricultural chemists and scientific men of all countries. In countries and soils where this disease prevails all varieties of the potato, whether the newest seedlings or the oldest known kinds, are liable to the attack, though with some it is more fatal than with others.

As every fact bearing upon the subject, and calculated to shed light upon it as to the cause or cure, is worthy of notice, we will state one fact that we have never seen mentioned, viz: It is well known that this disease has very generally prevailed in all the northern or eastern States, though in some seasons to a greater extent than in others, and last year it was unusually destructive, while with us it is seldom if ever known to occur, although our crops are planted throughout the entire planting season from the first breaking of the ground in March to the "dark of the moon in June," and there are few countries where the crop is cultivated to a greater extent than along the Ohio river.—Another fact is worthy of notice, that where the disease prevails there are few varieties of the potato more liable to the attack, or in which it is more fatal than the Neshannock, yet this constitutes the chief variety now cultivated in the West.

Recently a new and rather novel remedy for the potato rot has been proposed, and was first suggested by some boys in Belgium, who, for amusement, inserted peas in seed potatoes which they were planting, both of which grew up together, producing an unusual yield of peas, which were gathered, leaving the potatoes to mature, which on digging, proved to be entirely sound, while those planted in other parts of the field, and of the same variety, were badly rotted. This fact coming to the knowledge of Mr. Jackson, of Leeds, England, prompted him to submit a sample of diseased potatoes to careful chemical analysis which revealed the fact that invariably the diseased potatoes, as compared with the healthy ones, exhibited a marked deficiency of nitrogen, and of nitrogenized matter in every instance, and also a great deficiency, as compared with the published analysis of the potato, by Liebig and others, made some years before. "From that result," says Mr. Jackson, in his published report, "I inferred that the potato being inherently deficient in nitrogen, if it were inoculated with a substance intrinsically rich in that element, as peas are, during the mutual decomposition and chemical changes of the substances of both plants, in the process of their germination and growth, a sufficient evolution of nitrogen from the pea would take place, and be absorbed by and combining with and supplying the deficiency of that element in the potato, and thus communicate as it were, its equivalent in that way, and counteract its tendency to disease."

Mr. Jackson then tried the experiment practically, by procuring several kinds of potatoes for seed, and planted them whole, and inserting four or five peas deep into the fleshy part of the potato, taking care to not injure the eye.—The result was perfect success, with an extraordinary yield of both peas and potatoes, the latter being almost invariably large and healthy and free from every trace of disease. These potatoes were laid on a wooden floor in a house where they remained all winter, and in the following spring they were found to be all sound and healthy, and were employed as seed again in the same way with the same result.

We give the above for what it is worth; the philosophy may be correct and the discovery of some value, but not to the extent that many of our western farmers plant the potato.

THINGS TO REMEMBER.—A surveyor's chain is 4 poles, or 76 feet, divided into a hundred links or 792 inches.

A square chain is 16 square poles, and 10 square chains is an acre.

Four roods are an acre, each containing 1,240 square yards, of 34,787 feet, or 24 yards 28 inches on each side.

A pole is five yards and a half each way.

THE LARGEST YIELD OF CORN ON RECORD.

Dr. J. W. Parker, of Columbia, South Carolina, according to the report of a committee of the State Agricultural Society, raised the premium crop of Indian corn, amounting to *two hundred bushels* and *twelve quarts* per acre, the largest crop we have ever seen reported, and probably the largest ever raised. Of course, upon the soil of that section of the country some manuring and extra efforts to produce such a return were necessary.

According to the statement of Dr. Parker to the Executive committee, the following course of cultivation was adopted. The groun l was sand hill branch land, prepared by under draining and broken up in November, and twenty-five two horse loads of cow house manure were applied to the acre in December, and well plowed in, with a two horse plow, which was followed by the sub soil plow drawn by two mules. About the first of March another coat of stable manure was spread and again plowed. Early in April, three cart loads of air slaked lime, and two sacks of salt, were spread over each acre, and lightly plowed under. On the 14th of May the ground was thoroughly plowed again with a large plow, harrowed level and laid off thirty inches apart with a shovel plow. Guano and plaster was then sprinkled in the furrows—nearly 200 lbs. of the former and 300 lbs. of the latter to each acre. The seed planted, was first soaked for one night in a strong solution of nitre, and drilled at distances of eight to twelve inches in the rows, and covered with hoes; the ground was then rolled and left perfectly level. The first dressing was with a long, narrow plow, followed with hoes. On the 5th and 17th of June the same work was repeated, each time *leaving the ground level.* During the season there was a protracted drought, piece No. 1, was irrigated twice, and piece No. 2 had water turned on it once.

Now what do we learn from this? Why we learn that by *draining, manuring, thoroughly pulverizing the soil by repeated plowings and rolling and harrowing,* and in a season of drought, *irrigating*—even on *sand hill branch land,* a crop of over *two hundred* bushels of corn can be produced from an acre of land.

We do not expect that our Western farmers will pay $60 or $70 a ton for guano, and transport it from the Atlantic to the great prairies of the West for manure, nor will we ask them to plow their land four times, though it be not sand hill soil, before planting. But we ask them to observe, as a lesson, that perfect tillage consists in draining, deeply and thoroughly pulverizing the soil, the economical use of all the manure that can be made on the farm, and that it will result in the largest crops and in the end the most profitable returns. Two other important features we wish to call to mind in this experiment of Dr. Parker. We refer to the *drill* system and *level culture.* For twenty years we have practiced these modes of culture and compared the contrast of crops with our neighbors who have followed in the footsteps of their fathers, and we have been more than satisfied with the result.

We are glad to see that the absurd practice of hilling corn and other hoed crops, is fast yielding to sound reason and common sense, in many sections of our country, and many farmers are beginning to learn that with proper implements and a correct method of cultivation a much larger yield of corn can be obtained when cultivated with but one stalk in a place and from eight to twelve inches apart, more or less, according to the strength and condition of the soil, and requiring but a slight increase of labor over the ordinary mode of culture. We are confident that the corn crop, of the entire corn growing portion of the country, may be increased fifty per cent by an improved system of culture, requiring but a slight increase of labor.

AGRICULTURE AND POPULATION.

All past history demonstrates that the increase or decrease of the population of any country is in the ratio of the increase and decrease of the production of food—that is, the increase of population of any country is in proportion to the perfection of its agriculture. As an evidence of the lamentable results of an imperfect and neglected agriculture, we have only to look to Syria and other portions of the old world, whose population have become almost extinct. The same truths are demonstrated even among the Spanish settlers on our own continent.

M. de la Trahonnais, of France, has made an interesting communication, to the Society of Arts at Paris, in which he maintains the position assumed by Malthus, that the increase or decrease of population is exactly in the same ratio as the increase and decrease of the production of food in that kingdom, and ascribes the lamentable increase of deaths over the births, to the insufficiency of the supply of food. This distinguished agriculturist states as a fact,

that since 1850 there has been a gradual diminution in the number of births in France, and that according to statistics, in two years (1854, '55) the facts show that, while in every other country in Europe there has been comparatively a large increase of population, the number in France had actually diminished 106,000. Taking the article of meat alone, the deficiency in supply in 1856 is determined by the importation of meat and cattle to be equal to 30,560,000 pounds, and the other agricultural products of the nation for that year show a corresponding deficiency.

The French people present many peculiar characteristics. While agriculture among the nations immediately surrounding France is now carried to a greater degree of perfection, perhaps, than in any other part of the world, France is more deficient in the practice of this important art than almost any other nation of equal education and intelligence in the world. Few implements of agriculture are employed, and these are of the rudest kind, made after the patterns of ages past. Among the various causes which lay in the way of agricultural improvement may be regarded the fact that, the army requires annually several hundred thousand of the most hardy of her young men, leaving the productive interests of this great nation in the hands of women and the worn out and disabled portion of the men.

It will require some effort on the part of the rulers and prominent men of France, and a change in the character and policy of her people to introduce a remedy for this national evil.

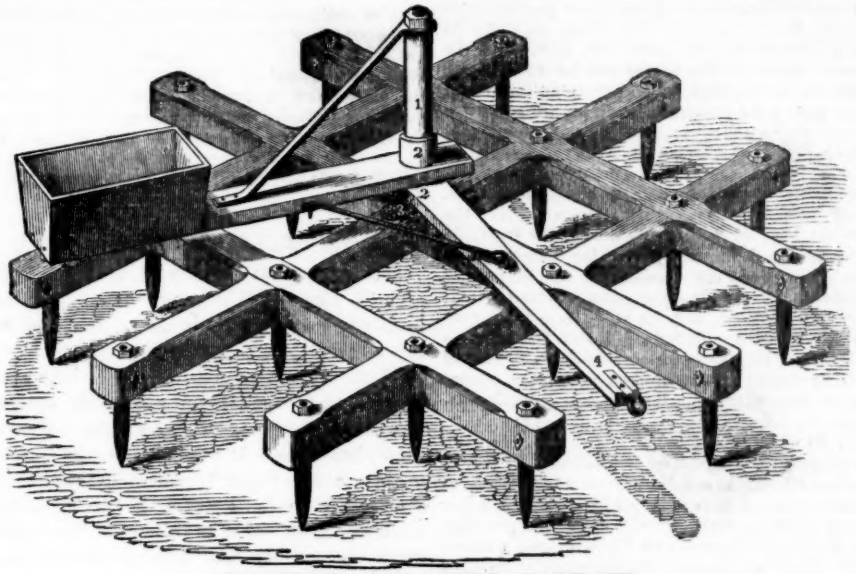
These facts teach us an important lesson that should not be lost upon us as farmers and as a nation. The success and happiness of a nation and of individuals composing a nation, are just in proportion to the perfection and prosperity of the agriculture of that nation. While land is abundant and new there will be an ample supply of the fruits of the earth to meet the wants of the population, even if the soil is but half cultivated. But how long will this state of things exist? No country in the world was ever so rapidly peopled as this, and the time is not far distant when our immense unoccupied domain will all be taken up.

There is now but very little land under cultivation in the United States, except in the immediate vicinity of large towns and cities, that may not, by an improved system of agriculture, be brought to produce more than double its present average yield, and with but comparatively small increase of labor. In proof of this assertion we have only to refer to some of the best managed market gardens in the neighborhood of our cities and towns, although these are far from being perfectly cultivated. These gardeners are mostly foreigners, who were taught in their native country a system of cultivation that might serve as a valuable lesson to our more extensive farmers. If these gardeners were as indifferent to the subject of manuring and mode of cultivation, as are their immediate neighbors, who are engaged in more extensive farming, they would not be able to pay the rent or interest on the land they cultivate; while now they are among the most thriving and prosperous of our population.—We have often thought these facts should be received as important lessons by our farmers.

ARTIFICIAL PROPAGATION OF FISH.

There are few countries possessing greater natural facilities for the artificial propagation of fish than many portions of the United States. Success, we believe, has attended every effort that has been made. The little work on the subject, written by Dr. Garlick, of Cleveland, Ohio, gives all the necessary information for stocking ponds and streams with the different kinds of fish for which they are best adapted. The experiments made by the Emperor of France, to stock the waters of St. Cloud, with trout hatched artificially, says the London *Atheneum*, has met with complete success. Trout twelve months old are eight inches long, and weigh from two and a half to three and a half ounces. Their value in the Paris market would be from twenty to twenty-five cents. Trout thirty-three months old are from nineteen to twenty inches long, and weigh from twenty-four to forty-one ounces, and sell at from sixty cents to a dollar and twenty cents each. The trout are extremely numerous, and promise to yield highly productive returns, in a commercial point of view. The principal object of the Emperor is to ascertain whether the production of fish by artificial means is more profitable than the cultivation of the land, taking the same superficial area in both cases.

We have recently spent some time in the country, and have examined a number of most excellent streams, fed by bold, running springs, that would make most admirable trout streams, and we have endeavored to induce the owners of them to procure from Dr. Garlick some young trout or eggs and stock them. We have also examined a number of ponds, fed in the same way, that are well adapted to the various kinds of still water fish, so numerous in our creeks and rivers. The subject is one worthy of encouragement, both by our Legislatures and by our State and county agricultural societies.



BUCKEYE ROTATING HARROW.

The above is a representation of the "*Buckeye Rotating Harrow*," recently patented by Wm. DeWitt and O. D. Barret of Cleveland, O. The toothed frame is made of suitable sized timber, halved together, and fastened by the teeth, which have shoulders that come against the lower side of the timbers and nuts on the upper side. The center-piece, 1, is made fast to the toothed frame by means of the cast-plate, 3. The thimble, 2, has a flange on its lower end, by which it is firmly bolted to the draft bar, 4. The weighted arm is held on either side by the draft-bar, and at right-angles to it by means of a hook as represented. A weight of twenty-five or thirty pounds is placed in the box on the weighted arm. This weight causes the teeth under it to sink deeper into the ground than the rest. As the Harrow is drawn forward, they meet with more resistance, and consequently cause it to rotate horizontally, pulverizing the ground completely, requiring less force to draw it than it would did it not rotate.

The advantages the patentees claim for this Harrow, are as follows:

1st. It will do twice as much as the common Harrow in pulverizing the soil, without any extra labor for the team.

2d. It is the strongest Harrow built, and does not cost as much as the common jointed Harrow.

3d. It is adapted to all kinds of soil, and can be operated like the common Harrow, by taking off the weight. This is of advantage only in reference to newly turned up sod, requiring to be harrowed with the furrows.

4th. By the rotating motion, the teeth are made to move in every conceivable direction, consequently they *sharpen themselves.*

5th. This Harrow leaves the ground smooth and even, as it is *impossible to clog it,* consequently stones, roots, vines, or other things, cannot be dragged along by it, to leave the ground in furrows as it frequently is by the common Harrow.

Ravages of the "Wheat Midge," "Hessian Fly" and other Depredators on Wheat.

We have received the following circular from Col. B. P. Johnson, Secretary of the New York State Agricultural Society, and although it is mainly for the farmers of New York, yet as the "Wheat Midge" has already found its way into some parts of Ohio, Indiana, and perhaps other Western States, and will, no doubt, at no distant day, become a serious drawback to the cultivation of the wheat crop in the West, we ask it as a favor of any of our readers if, from their experience, they can throw any light upon the subject by answering any of the following questions, to do so, and address them to Col. Johnson.

The ravages of the Wheat Midge in this country, so severe and continued year after year forms one of the most important incidents in the history of Wheat Culture which has ever occurred. And the State of New York is prominent as the scene of the depredations of the insect. The statistics returned to the State Agricultural Society in the year 1854, showed that the farmers of this State had that year experienced a loss of *several* millions of dollars from this pest; and in 1857 one of our citizens was injured to the amount of several thousand dollars by it; and in some sections of our State the wheat crop was almost entirely destroyed. These facts will serve to indicate to what an extent the wealth and prosperity of our State are at present affected from this cause. And the

Executive Committee of the State Agricultural Society feel it to be a duty which they owe to their constituents and posterity, now, when the whole history of this insect and its ravages are fresh in recollection, to gather up full information upon these topics, and embody the same in a report which will give a clear view of the remarkable career of this insect, its habits and economy and will form an authentic record of these important facts for reference in all coming time. They therefore issue this circular, with the earnest hope of hereby obtaining the requisite information from each particular district in all the wheat growing sections of the State, not doubting but that the persons to whom this circular is directed, will be able from their own knowledge or by conferring with a few of their neighbors, to give in answer to it every fact of value relating to this subject which has occurred in their vicinity. Replies more particularly to the following queries are desired:

1. In what year was the wheat midge (weevil as frequently called) first noticed in your neighborhood? From what direction did it appear to come to you? Was it very destructive for a few years after its first arrival? Was the growing of wheat abandoned, and for how long a time?

2. What has been its history since? In what years has it been most destructive, and when has it been least injurious?

3. Has it wholly disappeared at any time; so that on examining the wheat heads in many different fields not one of the yellow maggots could be found?

4. Before the midge came into your vicinity, is any instance remembered thirty years ago or more, in which a field of wheat was badly injured in the same manner it now is by this insect—with the heads rough and ragged and the kernels shriveled? If so, state the year and particulars, so far as remembered.

5. What other grains have been infested by this insect?

6. Have any varieties of wheat escaped injury?

7. Are crops upon dry, hilly uplands less injured than those upon lowland intervals?

8. What has been the amount of damage in your vicinity the past year, and the probable yearly damage since the midge came into your neighborhood?

9. What remedies have been tried, and with what success? Has any remedy proved effectual?

10. Has any parasite insect been seen which destroys the midge? If so, describe it.

11. Has any damage to wheat been made by the "Hessian Fly" or other insect than the wheat midge? If so, describe the same.

Finally, state any other facts of interest within your knowledge relating to this insect.

It is recommended that specimens of the wheat midge or any other insect supposed to be injurious, which may be observed, or any parasite insect which is supposed to destroy the wheat midge be sent to the Agricultural rooms. They can be sent in a quill, enclosed in a letter, and an examination will be made by Dr. Fitch, entomologist of the society, of all that may be received. The replies which may be received will be delivered to Dr. Fitch, and a carefully prepared statement will be published, embodying all that may be ascertained in relation to the insects which may be described, and copies will be sent to all persons answering these inquiries. Returns are requested to be made to the Secretary, Agricultural Rooms, Albany, N. Y., as soon as the questions proposed can be satisfactorily answered. B. P. JOHNSON, *Sec.*

WILL IT PAY?

This is the great question of the day. Every body asks "will it pay?" before entering upon any pursuit or even duty. Even ministers expect their profession to pay well, to yield a rich reward for the labor bestowed. Some do not expect a full reward in dollars and cents, but they do in virtue, religion, peace, happiness. If a man holds an office he expects it will "pay" in some sense. If it does not in goods, at least, in honor, mental profit or good done to others. We ought not to do anything that does not pay and pay well. All our labors should yield a good profit. The great trouble with men is that they do so many things that do not pay. What man in his senses believes that lying, cheating, gambling, drinking, swearing, rowdying, rioting, revelling, gluttony, meanness, debauchery, tyrany, idleness, folly, vanity, pride and such like, ever pay well? These are the things that do not pay. And the more of them a man does and has, the poorer he is, the less real pay he gets.

We believe, of all things, nothing pays better than a judicious, proper education. It pays in mental and moral strength, pays in executive ability, in judgment, foresight, intelligence, besides paying well in money. Intelligence on a farm is just as essential to triumphant success as in the pulpit, at the bar, or in the legislative hall. It is true that a less degree of intelligence will raise corn, wheat, potatoes; but for all the uses of the farmer it is quite as important as in any vocation. In the application of chemistry to the improvement of agriculture; in applying the laws of physiology to breeding and rearing stock; in adapting machinery to the various uses of labor; in studying and discovering the various characteristics of fruits, grasses, grains, vegetables; in preserving the natural strength of the soil; in discriminating the qualities of soil and their adaptation to the various products of the farm; in the application of the principles of economy to every department of the productive industry of the farm; indeed, in every possible way is su-

perior intelligence as useful on the farm as anywhere else. To secure such intelligence, education is essential. One must be educated to be thoroughly intelligent. It is true some educate themselves on the farm; their minds are ever active in the pursuit of the knowledge they need. But the most must be educated by books, schools, teachers and experiments, to be thoroughly intelligent. Now the ground we take is that the education of young men and women for the pursuits of farm life is just as important as their education for teachers, or for any other profession or position. We do not believe in educating the boys and not the girls for farm life. Every farmer wants a wife as intelligent as himself. We believe that "Hettie Hayfield," and such as she is, are of incalculably more use on a farm than a woman entirely ignorant of her duties. Go into her house, or upon any good farmer's farm and the truth that intelligence pays on a farm, would be established at once. Let the farming community awake to the interests of agricultural education.

(For the Valley Farmer.)

WATER.

A LECTURE TO THE YOUNG.

Well, boys and girls, I am going to give you a *talk* on the subject of Water—you may dignify it with the name of *lecture*, if you choose. Whatever the lecture may be, the subject is certainly not a *dry* one. After this small attempt at wit, we will begin.

Pindar, the Greek lyric poet, says, *ariston men hudor*, which, beautiful as it may sound in Greek, will be better understood by you when I put it in English, "Water is best." You have probably never thought how great a thing water is. Some things are so common that we do not appreciate them. I once spent a day in the Mammoth Cave. When I came out the beams of the setting sun were gleaming on the tops of the green trees, and I seemed to have stepped into fairy land. "Is it possible," I exclaimed, "that I have lived so long in this beautiful world without seeing the beauty?" I had beheld the same beauty almost every day of my life, but it was only when coming upon it suddenly from the darkness of the cavern that I *felt* how beautiful it was. We are surrounded with miracles. The most common thing around us is wonderful. The stars of the sky are not more wonderful than the "stars of earth," the flowers. The meteor that blazes across the sky and dazzles all eyes, is not so wonderful as the little stream that winds its way almost unnoticed along the earth. The shower of meteors that fills every mind with astonishment, and many with dismay, is not in itself so remarkable an object as the shower of rain.

Did you ever think what creates the difference between the desert of Sahara and the fertile plains of your own country? It is water that makes the difference. Without water, the whole earth would be a Sahara, without a single oasis; with water, the desert itself would blossom as the rose. You have read in fairy stories of flowers and fruits springing up on barren ground, at the waving of a magical wand. Such a magical effect would be produced in the most barren desert by a regular supply of water. You have seen the ground parched after a long absence of rain. At first the more delicate plants begin to wither; then one after another of the more hardy. This would continue till the leaves of the hardiest trees would wither—till the trees themselves would die—till the animals would perish, and the earth would be a desolation.

While all nature is suffering from the drouth, a little cloud rises and spreads over the sky. The rain begins to fall, and immediately the whole face of nature is changed. The plants raise up their drooping heads; the withering leaves swell out in fresh greenness; the grass smiles a welcome to the blessed drops. The poet Tasso has a vivid description of the effects of rain after a burning drought. I will quote a few lines:

"Earth itself, weak, feeble, faint before,
Whose solid limbs were cleft with rifts and chinks,
Received the falling shower, and gathered store
Of liquor sweet, that through her veins down sinks;
And moisture new infused largely was
In trees, in plants, in herbs, in flowers, in grass.
Earth like the patient was whose lively blood
Hath overcome at last some sickness strong,
Whose feeble limbs had been the bate and food
Whereon his strange disease depastured long;
But now restored, in health and welfare stood,
As sound as erst, as fresh, as fair, as young."

You may ask how it is that a few drops of water can produce so great an effect. This I will endeavor to explain. Plants are formed of certain substances which they derive from the earth. These substances are taken into the plants through the little roots. The roots cannot *suck in* these substances, if I may use the expression, while they are in a solid state. In order to be absorbed the substances must be in a state of solution. Plants take their food in the form of *drink*, just as you drink sugar dis-

solved in water. The food may be in abundance all round them; but if there is no water to dissolve it, it is of no use to them. Hence it is that rain is so necessary to the well-being of the plant.

Somewhere in the "Thousand and One Nights" (it has been so long since I read the book that I cannot point out the place) you have read of an enormous genii who comes with thunder and lightning, and in a few moments becomes invisible and departs. This is not more wonderful than what is done by the rain. The same water that comes in the black cloud, with the roar of the wind, the gleam of the lightning and the peal of the thunder, becomes invisible, and passes away so quietly that no one perceives its departure. This process is called evaporation. That dark cloud which is now coming up in the west, was formed of water that was invisible in the air. What wonderful transformations the same drop of water may have passed through! It may at one time have formed part of the solid ice berg that crushed the ship as you would crush the shell of an egg. Then it became invisible, and floated through the air like the spirits in Shakespeare's "Tempest." Then it made its home in the cloud, and became the companion of the lightning and the thunder. Soon it falls upon the earth, bringing with it life and joy.

But if I go on this way I shall be in danger of becoming poetical. Let us now come to something more sober and scientific. Of what is this water composed? There are two invisible gases, one of which is called hydrogen, the other oxygen. If you apply a lighted candle to hydrogen, it will immediately take fire. If you heat an iron wire and plunge it in a jar of oxygen, the iron will burn. Hydrogen is called a combustible gas, and oxygen a supporter of combustion. Of these two gases is water composed, in the proportion of eight parts of oxygen to one of hydrogen, by weight. When these two gases, which are such powerful agents in combustion, are chemically united, they extinguish flame. Apply your candle to the compound of oxygen and hydrogen, and it is extinguished; dip your heated iron in the same compound, and instead of burning up it is immediately cooled. There is not one of you, however "smart" he may be, who will ever set the river on fire, composed of oxygen and hydrogen, though it is.

But as the rain is beginning to pour down and the thunder is rather louder than my voice, I will stop for the present. N. B.

[For the Valley Farmer.]

FAIRS---A NEW MODE OF ORGANIZING.

EDS. VALLEY FARMER:—Thinking some little change from the present management of our county fairs would be satisfactory to a large majority of the people and increase the interest and make it more profitable in every respect, I therefore offer a few thoughts through the columns of your valuable paper. The present plan requiring every man to pay an equal amount to become a member is unjust, that is, making the poor man who has but little, pay as much as the rich one who has thousands of dollars worth of property. It is poor encouragement for a man to have to pay three, four or five dollars for the chance of a two dollar premium, and that is the cause of a great deal of stock not being exhibited. The members are allowed to take in their families free of gate fees. Some men have large families and by becoming members save money, besides showing a large lot of stock. Now my plan is for equality. The whole thing should be like the State and county tax we pay. Every person that goes inside the gate should pay—those that go in the oftenest will pay the most, and the owners of articles exhibited should pay a per cent on them, or pay so much on every article and every head of stock—fees to be rated according to the value of the premium, which would be the same as a per cent. I hear a great deal of complaint of men smuggling in property. The present plan holds out an inducement for men to smuggle. Men don't like to pay four dollars for the chance of a two dollar premium, consequently they let members of the society show their property; others keep back property that would make a respectable show, on account of this unfairness of management.

The plan I propose is the only just one, and the one that will give most general satisfaction to the people and cause the greatest amount of property to be exhibited. I cannot see why any agricultural society could object to this plan.

CALLAWAY.

Shamrock, Mo., June 2, 1857.

POOR RICHARD'S MAXIMS.

1. Plow deep, while the sluggards sleep, and you shall have grain to sell and to keep.
2. Pride is as loud a beggar as want and a great deal more saucy.
3. The eye of the master will do more work than both his hands.
4. If you would have your business done, go —if not, send

Stock Raising Department.

THE DAIRY BUSINESS IN KENTUCKY.

The question has frequently been asked us, why it is, that with your boasted blue grass pastures, and superior cattle, that you are so deficient in dairy operations in Kentucky, while in New England, New York and Northern Ohio, with but ordinary pastures, and the common cows of the country, the business is made one of the most profitable branches of farming?—To one familiar with the character of farming in our State the question is easily answered. It is true that we possess all the *natural* requisites for carrying on the business to the best advantage and to the largest profit, and yet no cheese is made in the State, and the butter sold in market is too frequently of the most inferior quality. To make good butter and cheese a thorough knowledge of the business, with great care and perfect cleanliness are required. In the districts we have mentioned, every dairy farm has some one at the head of the business, who understands and carries out these requisites. All then, that is wanting to render the Kentucky farmers equally successful is persons qualified for the business. We have visited numerous families in the State where the butter made is equal to the best in any country, and in these instances there is always some one in particular who has the direction and management of the dairy who understands it and will have the business properly attended to; these persons have their regular customers who contract by the year for all the butter that is made, and at prices considerably higher than that which is sold in the best dairy districts in the east.

In the neighborhood of Louisville the milk dairies are probably as well conducted as any in the country, and the milk, generally, which comes to market, is as pure as can be found in any city, but almost without an exception, these dairies are under the management of Swiss or Germans. The same success would attend butter and cheese dairies in the interior of the State if persons could be procured who were equally familiar with these departments of the dairy. A short time since we spent a day in examining the farm and dairy of Dr. J. S. Seaton, in Jefferson county. This farm was one of the first that was brought into cultivation in this part of the State, and when it came into the possession of the present proprietor, about four years ago, the soil was in that exhausted and worn out condition, like too many others, where the distillery has been the chief appendage. Dr. Seaton purchased this farm with the view to carry on an extensive dairy, and his first efforts, of course, were to improve the condition of the soil, and this he has done to a degree we have seldom seen equalled in so short a time. We were shown a field that had been in cultivation nearly seventy years, chiefly in corn, which last year yielded a crop of one hundred bushels to the acre. This was the result of manuring, deep and subsoil plowing. Other portions of the farm are still undergoing the same renovating process. Until the fields can be reclaimed and set in grass, the following rotation is adopted—first, corn, with a complete dressing of manure; after the last working of the corn the land is seeded with rye; this serves for winter and late spring pasture for the cows; it is then sown with millet, yielding a heavy crop of hay, thus securing three crops in two seasons, and leaving the ground in the best possible condition to be followed with grass.

The operations of the dairy are chiefly carried on by two Swiss dairymen, in the most systematic and cleanly manner, and differs somewhat from any other in the neighborhood of the city. There are between sixty and seventy milch cows on the farm, the proceeds of which are about equally divided between butter and cream. The butter, from its superior quality, is all furnished to regular city customers, families who, for a superior article, are willing to pay its full value. The cream is sold to the most prominent ice cream saloons, and the prevailing, old Virginia habits afford a ready market for all the butter milk and sour milk.

Our chief object in visiting this farm was to see the milk house and stables. The milk house is 44 by 48 feet square, built of stone and divided into several apartments, the largest of which is for the milk, which is strained into tin pans and set in water to the proper depth, supplied by a bold, never failing spring. There are several raised passages across the floor, so that every part of the room is easily accessible. The other apartments are for the chief convenience of the dairy, one of which has a furnace for heating water, washing and scalding the milk pans and churns. This room has a basin, excavated in the solid stone holding a barrel or more through which a stream of water flows at the rate, perhaps, of fifty gallons a minute.

The main cow house is 32 by 80 feet, with a

passage of 9 feet wide through the centre, with a mill house and sheds with stalls of nearly equal area. The feed is all cut in the room over head, and is supplied to the cows from a car running through the centre passage. Taking the whole establishment together it is one of the most complete we have ever seen in any portion of the country, and we examined it with greater pleasure because it is one of those institutions most needed in the west, and may well serve as a model for any one who may wish to engage in a successful dairy business.

The cows occupy the pastures only in the day time, from the earliest dawn till near night. After they are milked they are turned out into a large yard for the night. It was here that we were pleased to witness with what care all the manure that is dropped during the night is gathered up in the leisure hours of the day by the dairymen, and placed in heaps, ready for the land. The accumulation in this way would astonish those who have a less appreciation of its value, and the improvement of the soil, for the short period which it has been subject to this treatment reveals a lesson that all may profit by.

Dr. Seaton is quite sanguine that with his present course of treatment he can bring his land up to a degree of improvement that will yield one hundred and fifty bushels of corn to the acre, which we think in favorable seasons may be easily done.

DOMESTIC ANIMALS.

Domestic animals seem to be the especial friends of man. They attend him in all his perigrinations; serve him faithfully through their lives, and clothe and feed him with their bodies when they are dead. Civilized man, especially, makes great use of them. They help him in the work of civilization. They are co-pioneers with him in all new countries. They help him to clear away the forest, to break up the prairies, to till the soil, to build his home, his towns and cities, to dig his canals, to construct his roads, railroads, public works, and do all the great material work of civilization. Indeed they test his degree of civilization; for just in proportion as he is civilized, he increases the number of his domestic animals and improves their breeds and the uses to which he puts them. In half civilized countries only two or three animals are used, and these are worked in a very rude manner. In highly civilized countries, the number and variety of domestic animals are greatly increased and their uses greatly multiplied. And as civilization advances new animals are added to the domestic list. And no doubt it will increase till the whole become domesticated, or destroyed.—The whole earth will ultimately become the dominion of civilized man, and all animals that cannot be made useful in domestic life will be exterminated. Man will then be lord of the earth. He will rule over the animals and hold the animated kingdoms of the world subject to his authority. It was the original intent of his creation that he should have dominion over the animal creation—over fish, fowl and beast, as well as over the plants, trees and vegetable productions. Man was made in God's own image, according to the first chapter of Genises, to rule over the earth. He has not yet risen to the accomplishment of this purpose of his being. Since the days of Adam he has been gaining ground upon the animated world below him. He has steadily increased his dominion and as steadily gained sway over the animals about him. There are yet wide fields of wild country stretching out before him and vast herds of wild animals to be subdued or exterminated, before he will rise to the accomplishment of his material earthly purpose. There is no danger of the world coming to an end for long centuries yet; for if we believe Revelation, we must believe man is to gain sway over the whole earth and be master of the animate creation. At the rate of his progress since his creation six thousand years ago, it will take him more than six thousand years more to get entire dominion over the animal races. And when that time comes he will just fairly have begun to live; the race will have reached its proper manhood; the earth will have begun to blossom as the rose; and domestic animals will be taught to do all his hard labor, so that among men there will be no "hewers of wood and drawers of water," but all menial service will be performed by animals. Then man will have attained his true earth life and have assumed the position for which he was placed in this sublinary sphere. Hence domestic animals are vastly important to human progress and the accomplishment of the great temporal purpose of human existence. They are the means, in part, of human progress. They help the attainment of the great ends of civilization; and under the Divine superintendence are to be regarded as means in our own hands of our own elevation. Hence the agriculturist may see the proper position of his calling among the vocations of men, as at the head,

materially considered, leading them all on towards the grand and universal civilization which in ages to come is to surround and possess the whole earth. He can see also, how he should treat his domestic animals. They are man's proper attendants through all the career of progress. They are his servants, and if he treats them well they will be faithful and profitable. They serve many purposes of vast importance; but to the agriculturist, none is more important than the fertilizing results of their existence. They are the great fertilizers of the farm. They are perpetual manure factories. They gather from the atmosphere, the water and the soil, materials for constantly nourishing vegetation, and they render the air which vegetation destroys for its own purposes, fit for its use again. They are, therefore, equally necessary to the air and the soil for the purposes of vegetable growth. Man should, therefore, treat domestic animals as his companions—his servants—without which he could scarcely reach the material purposes of his earthly existence. He should treat them kindly, mercifully, even affectionately. He should feed and house them well; should work them with care; should exercise patience and forbearance towards them; should improve their breeds and uses as fast as possible; should make them comfortable and happy as a dictate of policy as well as humanity; should be honest with them and pay them well for the service which they perform. In every possible way it is for the good of humanity to improve and increase the number of domestic animals. Every new kind of animal subdued and domesticated, is a victory achieved for humanity; and every improvement made in the breed of any, is a public benefaction. A great purpose, therefore, is being wrought out through our domestic animals. Let the work go on. It is fulfilling a Divine purpose and working out the temporal destiny of our race.

FEEDING HORSES.

The number of horses required for towing the boats now navigating the Erie Canal is very great. There are two methods practiced in keeping and managing these horses—one is to take the horses kept for change of teams, along in the boats, the other is to have them stationed about twelve miles apart along the whole length of the canal. These horses are owned by three companies, who employ about 1,400. A correspondent of the *Scientific American*, in remarking on the subject says: "They have found after great experience, that the most economical and best feed for their horses is a mixture, composed of equal parts, by measure, of corn meal and mill feed (bran or shorts, weighing about twenty pounds to the bushel) mixed up wet with cut hay, and they accordingly feed this altogether."

We have long been convinced that the method of feeding horses, practiced by a large proportion of farmers is neither the most economical, nor is it calculated to maintain the unimpaired health of the horses. The true policy is to feed the grain, of whatever kind, in a ground state, and with the hay; but no doubt a portion of shorts mixed with corn meal is better than corn meal alone. The superiority of the horses of the Dutch farmers of Pennsylvania is acknowledged by every one who has seen them. Before railroads were established thousands of these Pennsylvania horses were employed in transporting goods over the mountains to the head waters of the Ohio river. For strength and endurance these horses were unsurpassed. The practice among these farmers and teamsters is to feed corn and rye meal, in about the proportions of two parts of the former to one of the latter, with cut hay. This combination keeps up the most healthy action of the skin and bowels, and gives the greatest strength and powers of endurance to the animals. Where rye cannot be had, bran or shorts no doubt, is the next best substitute to mix with the corn meal.

Sale of Short Horned Cattle at Woodburn Farm, Ky.

The fourth annual sale of Short Horns took place at the farm of R. A. Alexander, according to previous notice, June 2d, 1858. Forty-nine head of Bulls, Cows and heifers were sold, for the aggregate amount of $11,755. The weather was fine, and a large number of persons were present from other States as well as farmers of Kentucky. The prices, generally, were not high, though about equal to what might have been expected under the circumstances of the times. The following are the names of the animals sold, their age, names of purchasers and prices paid:

Norman—2 years old; bought by John R. Bryant, Ky.; $565.

Andover—2 years old; H. T. E. Foster, Geneva, N. Y.; $220.

Earl of Barrington—2 years old; Geo. Hamilton, Ky; $300.

Richmond—18 months old; Sam'l Ratcliff, Ky.; $160.
Jeweler—18 months old; A. Vanmeter, Ky., $100.
Masterman; 15 months old; Thomas Graddy, Ky.; $115.
Wolford—14 months old; A. Vanmeter, Ky.
Justice—14 months old; John Payne, Ky., $300.
Sangamon—14 months; N. Lee, Ky.; $590.
Champion—14 months old; S. Thompson, Ohio; $255.
Bonny Lad—12 months old; J. E. Thompson, Ky. $160.
Wamba—12 months old; E. D. Hobbs, Ky.; $100.
Red Jacket—10 months old; Dr. D. King, Ky.; $310.
Bancroft—10 months old; James K. Duke, Ky.; $95.
Franklin—11 months old; John Millikan, Ohio; $105.
Minstrel—10 months old; J. G. Handy; $145,
Cambridge—10 months old; W. G. Talbott, Ky.; $360.
Marmeluke—9 months old; William Stanhope, Ky.; $350.
Juryman—9 months old; T. D. Elmore, Ky.; $280.
Colchester—9 months old; V. Payne, Ky.; $90.
Ancestor—7 months old; S. R. Grundy, Ky.; $200.
Master William—6 months old; L. Blanton, Ky. $100.

COWS AND HEIFERS.

Norabell—7 years old; G. Smith, Ky; $180.
Beatrice—(imp.) 7 years old; do $455.
Alice Wiley—(imported) 7 years old; S. R. Grundy, Ky. $300.
Fenella—(imp.) 5 years old; Sam'l Thorne, N. Y.; $600.
Abigail—(imp.) 5 years old; E. L. Davidson, Ky.; $205.
Mary Ann—4 years old; S. W. Ficklin, Va.; $155.
Flora—3 years old, same, $405.
Vara—2 years old; James Sheldon, Geneva, N. Y.; $260.
Mistletoe—21 months old; S. C. Ludlington, Va.; $135.
Berthia—21 months old, same, $305.
Miss Willey 6th—21 months old; H. C. Gratz, Ky.; $250.
Variety 3d—20 months old; R. W. Howe, Ky.; $160
Gulnara—19 months old; James Sheldon,
Primose—19 months old; same, $335.
Midge—18 months old; same, $125.
Songstress—18 months old; C. M. Clay, Ky.; $130.
Chance—18 months old; C. B. McClaskey, Ky.; $275.
Albertha—17 months old; James Sheldon, N. Y.; $115.
Emily Cattley—16 months old; same, $160.
Miss Willey 7th—14 months old; same $160.
Orb 6th—14 months old; S. W. Ficklin, Va.; $170.
Mary Rose—13 months old; S. R. Grundy, Ky.; $280.
Joanna—12 months old; J. M. Millikan, Ohio; $130.
Baroness—10 months old; R. Beasley, Ky.; $100.
Norma—9 months old; J. M. Millikan, Ohio; $90.
Melody—9 months old; S. W. Ficklin, Va.; $115.

SHEEP.

There were 14 Southdown yearling bucks for sold, $501, ranging from $25 to $86.

[For the Valley Farmer.]

MAD ITCH.

Having suffered a heavy loss from that terrible disease, the Mad Itch, which you desire to be informed about, I have concluded, for fear that no other person may give you that information, to give you my experience. Several years ago, I fed my hogs with green corn in my clover field, where I had a lot of cattle running. After I had been feeding them some weeks, my cattle were taken with what I afterwards found out to be the mad itch. The first symptoms are a scratching and rubbing of their heads, ears and neck; they will rub them until they become perfectly raw. In the meantime they suffer a great deal, which they show by their running and bellowing in a piteous manner, after which death ensues. Before they die, their heads, neck, body and tongues swell, their eyes become bloodshot, and they suffer a great deal. Death is certain to ensue if the disease is taken, for I tried various remedies, such as a pint of castor oil with one, a pint of lard with another, and a table spoon of calomel with another; and all to no effect, as I lost nine head in one week. The hogs chew the corn stalks and get all moisture out of it, when the cattle come along and eat it, and it lodges in the manifold, and becomes hard and dry, so that when you take it out and break it, you can press no moisture out of it at all. The manifold has two entrances, about three or four inches apart, and both on one side, so that medicine can pass through without interfering with this hard, dry substance—that is killing them. I cut open a good many of my cattle, and was convinced of the cause and the effects; since which I have had further proof. A neighbor laughed at me for saying why they were killed, for, he said, he had fed his cattle and hogs together, &c., and had never lost any. But he has changed his views, for since that he has lost some six or eight head of cattle just as I did. I have known them to have it in the dead of winter, by half starved hogs eating the dry fodder, and dropping it, the cattle afterwards eating it and were killed. AGRICOLA.

Arrow Rock, Dec. 13, 1857.

SHEEP RAISING IN TEXAS.

Without attempting to answer all your inquiries in relation to sheep raising in this part of Western Texas, I will endeavor to respond to such questions as may be of most interest to such of your numerous readers as may think of embarking in the business. I will be as brief as possible, confining my remarks almost entirely to such matters as have fallen under my own experience.

It is now more than five years since I first engaged in the business. My reasons for starting in it were these: I thought that, if in Vermont and other northern States money could be made by raising sheep, where land was worth from $20 to $60 per acre, and where the farmers were compelled to toil hard six months in the year to keep their flocks alive the other six, that it would be far more remunerative in Texas, where lands could be purchased at from 50 cents to $1 per acre, and where the animals could pick their own living almost the year round. I well knew that many persons had already engaged in the business in Western Texas, and with loss or indifferent success; but I believed that their failures had been caused by want of good locations, by lack of suitable care and attention to their flocks, by having their lambs come twice a year and at all seasons, by not having the right kind of bucks to breed from, and by many other mistakes, all of which could be avoided or corrected. At all events, their want of success did not deter me from engaging in the business.

Without going into lengthy detail, I may say that early in 1852 I commenced operations on a limited scale. Under the charge of a gentleman of experience I sent out from Vermont some eighteen bucks and six ewes, selected by himself from the best Merino stock in that State, and the first location made was on the Nueces, a few miles above San Patricio. The first lot of ewes purchased, consisted of a flock of some six hundred Mexican, brought from some point on the Rio Grande. The sheep were healthy enough on the Nueces, as the particular range upon which they were pastured was dry, comparatively high, and in part gravelly or sandy, yet as I did not like the region as a permanent home, determined upon leaving it.

After examining the country on the lower Gaudalupe with some care, as well as on the lower Cibolo and its tributaries, and without finding a range which altogether suited me, I next visited the hilly regions of Comal county, above Newbraunfels. This section—high, dry, coated with short grass, and without any low or hog-wallow prairie—struck me as not only possessing the advantages I sought in the way of a healthy home, but as being admirably adapted to sheep raising, and here my flock was brought about the commencement of 1853.

At the outset we were without shelter of any kind, and the sheep, brought from the rich and more luxuriant mesquit grass prairies below, fell off in condition almost from the first. I am now confident it would have been far better had we brought the flock up in the spring; but experience had yet to be learned. That year, it may be recollected, the country was visited by a snow storm of unusual severity, the ground being covered for several days in succession. Of course many sheep, and especially among the thin wooled, delicate, Mexican stock, died.

During the summer of 1853, my agent purchased two or three flocks of mixed sheep, the greater portion from the lower country, and which had been pastured on rich mesquit grass; all were brought to Comal county and placed with the rest. Previous to this, or early in the year, a small flock had been bought of Gen. Pitts, who resided only some eight or ten miles from my location; his sheep had been pastured and raised on the same soil, grass, and character of country. I mention this as a point of some importance.

In the latter part of 1853 and during the winter of 1854, my flock did badly, many dying from a species of liver rot. The disease, however, attacked only such animals as had come from the lower country, and which had been pastured on flat, moist and rich soil; those purchased from Gen. Pitts, almost entirely escaped. Several of the Merino bucks brought from Vermont, died among the rest, and the general appearance of the flock was discouraging; yet, so long as I saw that the sheep bought of Gen. Pitts continued healthy, there was hope; they were "native here, and to the manor born," and there might be nothing in the soil, climate or pasture to generate so fell a disease as the liver rot. It seemed to attack such as had, at some period fed upon the rich and luxuriant grasses of the hog-wallow sections, and no others.

Meanwhile my sheep had been moved from my rancho, four miles above New Braunfels, to Post Oak Spring, a hilly location, thirty miles farther west. During the fall of 1854, and the early part of the winter of 1855, they were doing better; the liver rot seemed to have run its course, and the general appearance of the flock materially improved. The produce of the old Mexican ewes gave evident signs of great improvement, not only in form and apparent vigor of constitution, but particularly in the quantity and quality of the wool. Here I might state that a Mexican ewe, shearing one pound of coarse wool, if bred to a Merino buck of pure and approved blood, will produce a lamb, which, when one year old, will shear at least 3 pounds of much finer wool; and the produce of this lamb, again, if a ewe, will go up to 4 1-2 or 5 pounds of still finer wool. I can now show wethers in my flock, of the third remove from the original Mexican stock, which, last May, sheared seven pounds of wool—unwashed, it is true, but of exceedingly fine quality, and worth 30 cents per pound at this time in New York, or $2,10 for the fleece. This is a rapid improvement. Had the old ewe and her produce been bred constantly to Mexican bucks, the wether would have sheared about 35 cents worth of coarse wool—not more than 40 cents worth at the outside.

By a strange accident, and one which, probably, never would occur again, I lost between four and five hundred sheep, in the winter of 1855 by fire. The flock was in charge of a Mexican shepherd at the time, and through

carelessness he allowed his sheep to be caught in a fire sweeping over the dry grass before a strong norther. Not one was killed outright, but hundreds were so badly burnt about the feet and legs that they soon died.

In the latter part of February, 1855, if my memory serves me, my lambs commenced dropping: this was before the new grass had started, and while the ewes could barely pick enough of the old to sustain themselves. I think it was during the second week in March, and while a cold rain or sleet was falling, that I firmly made up my mind never again to have lambs come before the first of April, or 20th of March at the earliest. Many had dropped during cold rains and never were able to gain their legs, while the ewes, for want of a sufficiency of new grass, gave but little milk. I may here say that, on the coming 20th of October I intend putting bucks with my full blood Merinoes; on the 25th, with my half and three-quarter bloods, and and on the first of November, with my coarse stock. By this course my lambs will not come so fast next spring, and can be more closely watched and better cared for. But to go back.

During the fall and early winter of 1855–6, my lambs were not doing so well as could have been wished, and some of them died of a species of disease which seemed peculiar. There was a heavy mast of acorns that year, and the lambs, many of which were stunted and puny in early summer, for want of milk, devoured the acorns with avidity, and probably had not the strength to digest them. The disease has not since appeared, whatever it was.

The severity of the winter of 1856 cannot have been forgotten by those living in Texas at the time; a succession of cold, wet northers, followed each other from January until the latter part of March, with hardly a day's intermission. As at this period I was entirely unprepared with fodder, and as the hills and valleys at Post Oak Spring had been unfortunately swept of grass during the previous fall by extensive fires, again my sheep suffered, and many died. A few tons of well cured hay, stacked near my sheep fold, would have been of incalculable advantage; but unfortunately it was wanting. Yet as I had no lambs until the 1st of April, or but few, the deaths were less than could have been expected—far less than in many other flocks in western Texas—and by the time the lambs commenced dropping, the new grass had appeared to sustain the ewes, and increase the quantity of their milk.

My success since April, 1856, has been most flattering—has been unprecedented; in that entire period, although at one time my flocks were unable to go out on account of sleet and cold, I have not lost one per cent of everything, old sheep and lambs. When losses are ordinarily set down at 15 or 20 per cent. in successful flocks, I repeat that my luck has been unprecedented; and at this writing (Sept. 1857), I can show as fat, strong and healthy flocks, as any in Europe or America—vigorous, and all apparently free from every species of disease, and thoroughly acclimated. My lambs, altho' the most of them are not yet five months old, have grown up to the size of old sheep, and, being well coated with wool, look as though they could withstand any winter in store for them. In the last four months I have lost but a single animal—an old ewe, from inflammation of the lungs. I cannot well hope for such extraordinary good fortune in future; but as I shall be prepared with fodder to feed out in case of severe storms during the coming winter, and as the sheep will all probably enter the season of northers in good condition and sound health, I cannot reasonably anticipate heavy losses.

Such is a brief and hasty account of my experience in sheep raising, so far. I may be a little out in some of my dates, but not to any material degree. To say that the enterprise has succeeded according to my original hopes, would be untrue; yet experience has taught me that many errors have been committed, which I can guard against in future, and I am more sanguine than ever of full, ultimate success.

I will now give such poor advice as I am able to offer those of your readers who may contemplate going into the sheep raising business. I would first recommend them to seek a high, dry and healthy location, where grass is short and as fine as possible, water clear and handy, and the entire range free from low and wet marshes, or extensive hog-wallow prairies. They should next erect suitable sheds to shelter their flocks from the cold, wet, sleety northers of winter—a small outlay will do this. It would also be well for them to cut a few tons of hay, to cure and salt it well, and stack it up at a point where it can be fed out handily during a severe storm of sleet and snow; no such storm might come, and the hay might not be needed, yet it would be more prudent to have it in case of necessity. The shed should be built at some point on a hill side, on dry and sandy ground if possible, and protected naturally from the north winds; it should overlook a valley intended for a garden or for cultivation, where the wash would materially increase the fertility of the soil. Pens should be constructed in the vicinity, to be moved often; I change my sheep to fresh ground every ten or fifteen days, thus improving their health while manuring more land—important items, both.

Being now prepared to pasture, pen and shelter a flock, the next business is to purchase it—no easy matter at this time and in this section, where every owner of sheep, satisfied that the stock is profitable, is disposed to hold on.—Along the Rio Grande, or in the interior of Mexico beyond, a person might pick up a flock of ewes at $1,50 each; they formerly sold at $1,00, but I am told they have increased in price. They might be driven here at an expense of say 25 cents each, which would bring up the cost of a flock of 1000, to $1750. Or suppose a person should go to the western part of Arkansas, or the south-western portions of Missouri, there a flock of common American ewes (far better stock to commence with than Mexican) might be got together, which, when driven to this section, would not cost more than $2,25 each, or $2,50 at the outside. At these rates, say the latter, a flock of coarse American ewes, 1000 in number, would cost $2500, and would

be better worth that price, to my thinking, than a flock of Mexican at $1750, as they are larger, more hardy and better coated with wool.

Now, whether the person engaging in the business has purchased Mexican or common American ewes of the number specified, his next care is to select bucks; and here he cannot take too much pains, nor well go to too much expense. From my own experience, I should recommend pure Merinoes. I may be prejudiced, but I would not take the gift of any other stock. They are the hardiest, the healthiest, the most gentle, the easiest managed, the heartiest feeders, nurse their young better than any other breed, and are the longest livers. More than this, and more important than all, they shear three times as much wool as the common American stock, and five or six times more than the Mexican, at the least calculation, while each pound is worth nearly double as much. The evidence of what can be done by crossing, I have already shown in the yearling wethers. I have mentioned three removes from an old Mexican ewe which sheared 1 pound of wool, which, last spring, gave me over 7 pounds.—This is a fact which cannot too often be repeated in the ears of those about to engage in wool growing. Pure Merino bucks from well known flocks, may be purchased in Texas at from $50 to $75 each, choice animals would probably command a higher price. Fifteen good bucks would be sufficient for a flock of 1000 ewes, altho' twenty would perhaps secure a stronger and more numerous increase.

I have now, as it were, set a man up in the sheep raising business; let us next see what he is likely to realize. I have not placed in the list of expenses or outfit, the cost of a location or range; but I will assume that a place in every way well calculated or adapted for a sheep walk, can be purchased for $1,00 per acre, and that, if selected with judgment, it will more than take care of itself: in other words, that the natural increase in the value of improved real estate in Texas, will prove of itself a good investment, and bring in a handsome profit to the purchaser. It is true that during the past two years, the excessive drouth and failure of the crops, in many sections have prevented any increase in the value of lands of consequence; yet I am among those who have an abiding faith in the growth and prosperity of the State, and will not believe that Providence has forsaken so fair and fertile a portion of the earth. But let us go back to the sheep business.

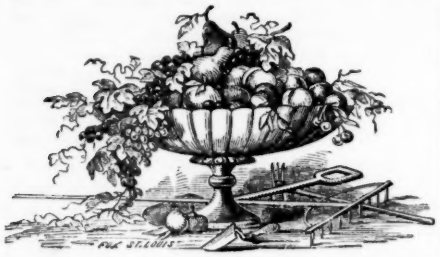
We all know how delusive profits on paper ordinarily turn out; yet I think if a person will follow, in the main, the plan I have suggested, he may hope to realize handsomely from an investment. I will here give a statement, and allow a large margin for losses:

Cost of 1000 American ewes, at $2,50 each	$2,500
" 15 Merino bucks, at $50 each	750
Total capital invested	$3.250
Interest on above, at 10 per cent	$ 325
Cost of hiring and feeding shepherd	275
" salting the sheep	50
Expenses at shearing time, an other extras	50
Total cost of keeping, &c	$ 700
Value of 2,000 lb wool from ewes, @ 20c ℔ lb	$ 400
" 150 lb wool from bucks @ 30c ℔ lb	45
" increase in the flock, say 700 at $3 each	2,100
Total receipts	2,545
Deduct from this, cost of keeping, &c	700
And we have a clear profit of	$1,845

This is a tolerably fair buisiness, as any one will say, and I think I have allowed liberally for losses. With such luck or success as I have had during the two last lambing seasons, the increase should be nearer 900 than 700. I have put down the amount and value of the wool at low figures, as well as the value of the increase; for it should be borne in mind that at least 350 of the lambs shold be ewes, which I should esteem cheap at $4 each, when one year old, while fat wethers, after being shorn in the fall, readily command $2,50 and $3,00 each in San Antonio, for mutton. But as the increase, all half Merinoes, should average 4lbs. of wool each, it would be more profitable to keep the wethers until aged—at least such is my impression. I have neglected to take into account that, in one sense a man's capital is to an extent compounding; for it is to be presumed that any one entering the business would keep all his ewe lambs for breeding.

In concluding an article—perhaps already too long for your valuable annual—I would again impress upon all the necessity of first finding a suitable range for their sheep before they purchase a flock, and to make suitable preparations to see their animals safely through the first winter. This is half the battle gained. It was remarked by a celebrated lady, named Glass, who claimed great skill in the cooking of fish, that it was a matter of primary necessity first to catch the fish; she could build her fire and clean her frying-pan afterwards. In the matter of sheep the thing is reversed; first prepare for them and then catch them, and if a person will do this, if he will purchase and prepare a suitable location, and then place upon it a healthy flock of sheep, if he will see that they are properly cared for and watched, and salted with regularity, if he will see that they are judiciously crossed, if he will see that their pens or sleeping yards are changed often; in short, if he will continually keep a watchful eye upon them, I am confident he will reap a rich harvest of profit. At all events I would not exchange my flocks of sheep for any other stock of equal relative value in Texas.

On hastily running over what I have written, I find that I have not answered your main interrogatories, or at least not in the order in which they are propounded in your circular. Many of those questions it would be difficult to answer, and I have aimed rather to give my own experience, to point out some of the mistakes I have made, and to give such poor advice as I am able to do to such as may think of embarking in a business which I honestly believe is destined to become one of the most remunerating in Texas.—*Texas Almanac.*



Horticultural Department.

PRESERVING FRUITS FOR WINTER USE.

Since the method of preserving fruits in their natural state was first introduced a great variety of cans and jars have been invented and patented, each claiming some special merit. Experience has proven that tin, in any form, is unfit, it is liable to corrosion, owing to the acid contained in the fruit, and besides imparting an unpleasant flavor and dark color to the fruit, while the cans can be used only for one season. Glass, stone and earthen, with various devices for tight sealing, have been employed, all more or less convenient.

With the view to encourage the more extensive and general preservation of fruits in this way, we have furnished the proprietors of the Louisville glass works with the plan of a new fruit jar, possessing advantages for easy and perfect sealing over any others that have been introduced. The proprietors of the glass works after some delay have commenced the manufacture of them, of all the various sizes, and we hope that a full supply will be made. The jar is similar in form to those formerly used, except the mouth or neck, which is made of the usual size of the common flat cork. This neck is formed with a shoulder upon which the cork rests, which will prevent its ever being forced in by the pressure of the atmosphere in consequence of the cooling and shrinkage of the contents, but the pressure only renders the cork more tight as it is forced down on the shoulder or ledge, and with the ordinary sealing wax renders them perfectly tight, easily uncorked, while the bottles and corks may be preserved and used for years, as good as new. As some of our readers may not be familiar with all the details of preserving fruit, we again repeat the process for their benefit.

The fruit to be preserved should be scalded or boiled in a kettle for a few minutes and kept covered while cooking; if the fruit is not of a very juicy character, a little water should be put in to prevent burning. Sugar may be now added to suit the taste, or it may be omitted until the jar is opened for use. The jars to be filled should be set in a pan of water and kept boiling to prevent their breaking, when the fruit is put in, as well as to render the vacuum more perfect under the cork when cooled. With a small dipper and a wide mouth tunnel, fill the jars with scalded fruit, first selecting a cork neatly fitted to each jar, press the cork firmly down to the shoulder in the neck, then with an iron spoon apply a quantity of wax and rub it so as to fill all the cavities in and around the cork; the space above the cork may then be filled with wax with the spoon, or the jar may be dipped and covered in the usual manner. If care is taken to have the fruit thoroughly scalded, and the corks of the right size and well sealed, it will keep for years as good as when first put up.

Wax may be prepared by melting some rosin, adding one ounce of tallow to every pound of rosin, mixing it well.

Some persons use prepared plaster of Paris to fill the cavity above the cork.

If the precaution is taken when putting in the corks to place a small, strong twine across the mouth of the jar, under the cork, leaving the ends out, the cork may be drawn with ease, and be fit for use again.

GRAPE CULTURE AND PRUNING.

In the vine growing countries of Europe, the system of close and rigid, semi-annual pruning has long been practiced. Whether this system of close pruning is the one best adapted to the nature of the vine and the climate, and the one productive of the most healthy and profitable returns, are questions which we are unable to answer.

The first systematic efforts at vine growing in this country, we believe, were made by persons of foreign birth, and the business as now followed by the citizens of our own country, is chiefly carried on under the management of foreign vine dressers, who rigidly adhere to their native habits and prejudices. We know of no other vine, or fruit tree, that will remain healthy and productive under such a severe course of pruning and defoliation. It is true that, if vines are to be trained to stakes as practiced in field culture, considerable winter and summer pruning must be done to render the vines at all manageable under this plan of

cultivation; but we are decidedly of the opinion that the method of pruning as now practiced in this country, is not the one best calculated to promote the longevity of the vine, or to favor its greatest and most healthy production.

We are also far from believing that fruit trees and vines should never be pruned, but we believe that the system of vine pruning as practiced in this country, is carried to excess, and far beyond that which is required for any other kinds of fruit.

The two leading varieties of grapes which are now so extensively cultivated in this country, are liable to material loss by rot, in the early part of she summer, and this disease is greatly aggravated by wet, sultry weather, which often occurs about the time the grapes are of the size of small peas. Now, whether this disease is encouraged or in any degree promoted by any irregularity in the circulation, caused by excessive pruning, or not, is a matter that must be determined by experiment. The subject has attracted the attention of some of the members of the Cincinnati Horticultural Society, and objections have been raised against the method of pruning now practiced by the majority of vine dressers. We regard it not only an important matter for discussion by the society, but we think that the question may easily be determined through the agency of the society, if it would encourage its members to make some experiments with that object in view.

It has long since been ascertained that it is only our native grapes that are adapted to open culture in this country. An excellent wine grape known as the "Scuppernong," has long been cultivated in North Carolina, its native country. This is a variety of very peculiar growth, and is seldom pruned by the cultivators in that country, and when furnished with proper support, a single vine will often extend over many square rods of ground; forks and poles are furnished, forming a kind of scaffolding, allowing the vine to extend its rampant growth without limit. In this way these vines yield large crops, and we have never heard of their being affected with mildew or rot. Allowing this vine to take its natural course and extend its branches unrestrained, is as great a fault, we believe, as that of excessive and close pruning, as practiced by the growers of the Catawba and Isabella varieties, which are also native neighbors of the Scuppernong.

We wish the subject might receive the attention of our friends of Ohio, as well as Herman, Mo., and lead to some experiments on the subject, and favor us with the result.

THE WINE FAIR OF THE MISSOURI WINE COMPANY,

Held on the afternoon of the 12th of May, 1858, at the office of the Company in St. Louis, North West corner of Second and Chesnut Streets.

PROCEEDINGS.

The Fair was held in pursuance to notice given by the Company for about two months in the public prints as follows:

WINE FAIR OF THE MISSOURI WINE COMPANY—PREMIUMS $250.

The Missouri Wine Company offers the following premiums for the best Pure Native Wines of the growth of 1857, to be offered in competition in the city of St. Louis, on Wednesday, the 12th May next:

First Premium	$100	Fourth Premium	$30
Second do -	50	Fifth do	20
Third do -	40	Sixth do	10

The object being to encourage the culture of the vine, the wines offered must be the product of the competitors, from quantities of not less than 40 gallons, and of the vintage of 1857.

Each sample to consist of three bottles to be forwarded previously, to the address of the undersigned, care of K. Mackenzie.

COMPETITION IS SOLICITED FROM ALL THE WINE GROWING STATES.

No wines will be offered in competion by the Company or any one connected therewith.

WM. GLASGW, Jr.,
Pres't Missouri Wine Company.

There were assembled a great number of gentlemen, many of them wine growers and dealers from various western States.

Upon motion of William Glasgow, Jr., President of the Missouri Wine Company, Alexander Kayser was appointed Chairman, and John M. Krum, Secretary. The following gentlemen were then elected as Judges to award the premiums, viz:

Alexander Kayser, St. Louis; John M. Krum, do.; Adolphus Mier, do.; L. C. Garnier, do., E. M. Ryland, do.; Isaac Rosenfield, do.; F. A. Reuss, do.; T. O. Day, do.; Leopold Gast, do.; Wm. Wade, do.; Edward Haren, do.; R. K. Woods, do.; A. W. Simpson, Boonville; A. Leimer, Hermann; C. Moller, do.; Frederick Munch, Warren county, Mo.; Felix Valle, St. Genevieve; Tittman, Belleville, Ill.; Fred. Schulenburg, Minnesota.

Mr. Glasgow, the President of the Company, announced that in all seventy-two (72) samples of three bottles each, had been received by the Company, in competition for the premiums, namely.

From the State of Missouri, Illinois, Iowa, Kentucky, Tennessee, Ohio, Indiana, New York and Wisconsin.

These samples were thereupon presented to the committee for their judgment. Each sample was numbered on the bottle, and registered with a corresponding number opposite the name

of the producer, the register being held private in the possession of Mr. Glasgow, and of course no name or other mark of recognition appearing on the bottles.

The wines were all taken up and tested by rounds of four, the wines being poured into glasses having corresponding numbers.

The samples numbered as follows, were selected for further test, with a view to final award, namely: Nos. 51, 61, 60, 34, 25, 2, 13, 12, 4, 7, 9, 8, 50, 14, 5, 6, 46, 51, 33 1-2, 80, 32, 56, 53, 23, 40, 11, including 26 select samples.

These samples were subjected to further trial in rounds of 5, the Virginia Seedling Nos. 9, 11, and 40 being separated from the other wines.

The selection on this second test was reduced to the following numbers, to-wit; Nos. 60, 46, 58, 34, 13, 12, 50, 6, 80 and 53, making 10 samples.

On the third trial the ten were reduced to the following five final numbers, namely: Nos. 46, 12, 50, 6 and 80, as entitled to the premiums offered for Catawba wines, which premiums were allotted in the following order:

First premium to No. 12; second premium to No. 46; fourth premium to No. 6; fifth premium to No. 80; sixth premium to No. 50.

Nos. 9, 11 and 40, containing the Virginia Seedling, were submitted to the test, and the third premium awarded to No. 9.

Thereon, on call, the Register produced and delivered to the Secretary, who read therefrom the following names, as corresponding to the premium numbers:

No. 12, Thomas H. Yeatman, of Cincinnati; No. 46, John E. Mottier, of Cincinnati; No. 9, Jacob Rommel, of Herman, Virginia Seedling; No. 6, T. G. Kuhn, of Herman; No. 80, Wm. Haas. of Boonville; No. 20, Henry Disque, of Burlington, Iowa.

The first premium of $100, was therefore awarded to Thamas H. Yeatman, of Cincinnati.

The second premium of $50, was awarded to John E. Mottier, of Cincinnati.

The third premium of $40, was awarded to Jacob Rommel, of Hermann, for the Virginia Seedling.

The fourth premium of $30, was awarded to Francis George Kuhn, of Hermann.

The fifth premium of $20, was awarded to Mr. Haas, of Boonville.

And the last premium of $10, was awarded to Henry Disque, of Burlington, Iowa.

It was resolved that honorable mention be made of samples No. 60, Schnick, Cincinnati; No. 14, Robert Buchanan, Cincinnati; No. 13, Thomas H. Yeatman, Cincinnati; NO. 58, Michael Mentel, Waterloo, Illinois; No. 53, Theodore Engleman, Belleville; also No. 50, Boller's of Boonville, red wine, and No. 11, M. Poeschall's of Hermann, Virginia Seedling.

There was also an honorable mention to be made of the wine of Samuel Massey, of Massey's Iron works, on the Maremec.

It was, on motion of Major Ryland, unanimously resolved that the thanks of the public throughout the west be and are hereby tendered to the Missouri Wine Company, for the liberality displayed by them in offering the mentioned wine premiums.

The commitee were highly gratified to find presented on this occasion so many wines of superior excellence, and feel now entirely satisfied that the Western States will ere long successfully compete with the first wines of Europe both as to quantity and quality of their wines.

ALEXANDER KAYSER, Pres't.

JOHN M. KRUM, Secretary.

St. Louis, May 13th, 1858.

CURRANT WINES.

Wine can be made from the juice of the currant, combined with water and sugar, in almost any proportions, but the quality will depend upon the proportions and mode of manufacture.

The currant should be fully ripe, and grown with a full exposure to the sun, except such shade as may be given by their own bushes, properly trimmed and cultivated. The currant should not be over ripe. Every one has probably noticed that currants eaten in September and sometimes earlier, have an acid flavor, which is entirely different from the rich acid peculiar to the well cultivated currant. If over ripe they are usually shrivelled a little, and are then unfit for first quality wine.

The currants should be picked and the juice expressed from them before fermentation commences, which will happen in a day or two after they are gathered in warm weather. In a small way, the juice may be expressed by squeezers. I usually grind them in a hand mill several bushels at a time, and express the juice in the press. Let the juice be well strained and added to the sugar, and then add water until all the sugar is dissolved, put it in the cask, and fill according to the recipe No. 1.

I have tried various proportions. In 1850 I made seven barrels according to the recipe No. 1, and have three or four barrels now on hand, so that we are sure it keeps well, being now six years old, and is generally declared to be very superior, though some think it too sweet. It is prescribed by physycians as a tonic, and sells readily at $1,50 per gallon.

I shall make the next according to recipe No. 2, which will be less sweet, and I think will keep well.

RECEIPE No. 1—10 gallons pure juice.
100 pounds good sugar.
Water sufficient to fill 40 gallon cask.

RECEIPE No. 2—10 gallons pure juice.
80 pounds good sugar.
20 gallons water.

Mix well, and put into a very strong cask, (alcohol barrels) in a cool dry cellar, and bung up tight, vent hole and all. If the cask is old do not bung up tight; if you do you may find your liquor turned into low wines on the cellar bottom. If you do not stop your barrel tight, it is best to put a piece of gauze over the bung hole, to keep the flies, &c. out. Let the wine remain in the cask three months, and carefully rack it into another before removing the "original package." After nine months more it will be fit to bottle, and grows better every year for seven years, and how much longer I am not able to say.—*Country Gentleman.*

[Written for the Valley Farmer.]

GARDENING OPERATIONS FOR JULY.

BY CAREW SANDERS.

VEGETABLE DEPARTMENT.

The extraordinary wetness of the season will have prevented the proper cultivation of the growing crops. Indeed it has been impossible to keep down weeds, by the use of the ordinary methods, throughout this region of country, and on heavy tenacious soils.

As the dog-days were approaching, we had it in contemplation to talk about the immense benefits to be derived from the frequent stirring of the soil, as a preventive of drouth, but up to the present writing, this would be entirely superfluous, and we leave it for some other time—though it may be necessary yet, before the season closes.

In large Gardens, Nurseries, or Fruit Farms, where the weeds have got the upper hand in spite of all opposition, we recommend the following plan, which we have been compelled to adopt, in a large Garden, where it would be too expensive to rely on the hoe alone, to do the cultivating, and where it was impracticable to run the cultivator or plow. Pull out by hand the weeds immediately along the rows, of whatever kind; and with a hook or short scythe, cut down all tall weeds between the rows, close to the ground, before they have a chance to seed, and repeat the operation as often as necessary. This will at least have the following effect:

It will admit light and air around and among the young plants. If done in time, it will prevent the weeds from perfecting their seeds, and last, though not least—it will enable the sun and wind to reach the surface, and dry it up quicker than it would otherwise do, when the incessant rains have finally ceased, thus enabling you to get through with the cultivator the sooner, tearing and pulling the roots of the weeds to pieces.

Succession Crops.—Main crops of Celery and Winter Cabbage may be got in during this month. Also main sowings of Endive, Ruta Bagas, Cucumbers for pickling, &c. A last crop of Sweet Corn for roasting ears will mature if sown the first week, while Snap Beans, Squash, Lettuce and Raddish, will still be in order,—and Beets and Carrots will yet make a crop if sown soon. The main requisite for the successful growing of Vegetables, after hot dry weather has set in, is a good depth of loosened soil. The subsoil if loose and open, is a reservoir, which plants can draw from for a long time during drouth, hence one of the great advantages of under-draining and sub-soiling. The benefits of the two last operations, (where practiced,) can be seen and felt, very readily in a dry season. But their effects are equally perceptible in a universal wet season like the present.

FLOWER GARDEN.

The principal directions given for last month will be equally applicable to this.

The planting and seeding being mostly all done for the season, the leisure should be devoted to the preservation of neatness and order, throughout the entire Flower Garden. Grass edgings and lawns, should be frequently and evenly cut and the walks kept clean and smooth. Tie up herbaceous plants as they require it, and remove the old stems of all plants as they go out of flower.

Roses may be both layered and budded this month. If you have any strong growing sorts of Annual Roses of little account, they may easily and quickly be made attractive and valuable by inserting buds of choicer kinds into them.

Carnations and Pinks may be increased by layering, in a manner very similar to Roses.

Save seeds of any flower that exhibits any marked improvement, or any peculiarity in color, size or form, and always save from the best flowers, that is—the largest flowers and best colors.

Mignonette sown now, will bloom finely during the Fall months.

FRUIT GARDEN.

The usual routine of keeping down weeds, stirring the soil where practicable, will follow as a matter of course. This and gathering the fruits of your labor, will be the principal things requiring attention now.

The first rooted runners of Strawberries, may be set out, during moist weather, if desired. Those that live will make strong plants and fruit freely next season. This has been a glorious season for Strawberries, as regards size and quality. Many of the new aspirants to public favor, will be fairly tested this season.—Some of the be-puffed and high-priced ones, to be discarded and thrown away as trash; others to be retained as valuable acquisitions.

We promised in a late article, to say something about Summer pruning or pinching. Those who intend practicing it, should commence at once, and carry it through the next three months. The Dwarf Pear growing, has been the principal means of introducing this process into this country, though as yet it is but little practiced, and less understood. Though time will prove this to be the principal means to bring the bearing qualities of Fruit Trees under the entire control of the operator, and will cause it to become (ultimately) universally practiced. Of this we have no doubt.

The general principles of Summer pruning may be found in the quotation below, this being in accordance with our notions we have copied it, in preference to elaborating in our own mind, the proper words to express the same ideas.

"Summer pruning or pinching, consists in stopping the elongation or growth of the young branches by pinching or cutting off the ends more or less, according to their strength, situation, &c.

By this means, an increasing formation of wood is prevented, and the accumulated sap forced into the shoots below those which are stopped, and what would otherwise be barren spurs, become fruit buds in a short time. As an illustration. Suppose a shoot was produced the last year two or more feet long, and at the winter pruning it was shortened to one foot. Now this shoot, when it begins to grow, will push so rapidly that they soon crowd each other and make wood two or three feet long, which would have to be cut back again at the next winter's pruning. This process may go on for years, if not checked, until the trees become a mass of wood, without any appearance of fruit buds. If such a shoot is examined now, it will be seen as we describe it, viz: with five or six young shoots springing from the last five or six buds. Their growth must be checked, in order to push out the dormant buds below; pinch them off, therefore, at the second, third or fourth joint from the branch—if already too tough to break, cut them with the knife.

In a short time the eyes below will begin to grow, or if already grown, they will begin to thicken and form a good strong bud at the end. The shoots that were pinched off will also grow stouter, and form one or more buds along the sides, or perhaps the terminal bud will break again; if it does after making four or five leaves it should be stopped a second time, later in the season.

The main shoot, if strong, may be nipped off at the same time, unless wanted to fill some vacancy, or make a more symmetrical tree.—Pinching it off at greater or less length depends upon the vigor of the tree; but as a general rule, it may be stopped when six or eight inches long. If stopped too short, it will make all the dormant buds below break too strong, and in the place of incipient fruit spurs, fresh shoots will be formed which will need pinching again.

Proceed in this way to stop all the *side* shoots, unless they are wanted to fill some vacant place, all over the tree, afterwards pinching the main shoots, to give shape to the head. If the growth is carefully watched the results of this process will be soon apparent, and spurs will be formed along the branches, which will become bearing shoots in the second or third year, sometimes the first; but with trees upon the pear, not often till the second or third.

Repeat the pinching as often as the buds break on the shoots already operated upon, until the growth begins to slacken in autumn, when it may be discontinued, and the final pruning left to be completed after the ripening of the wood." Though summer pruning is generally applied to the pear, it may be adopted with equal benefits upon all other large fruits, and even the raspberry and currant, only with some variation and modification, in accordance with the fruit bearing habits of the different kinds, which must be learned by observation and experience by the young beginner, but which will be familiarly known to every experienced gardener and orchardist.

St. Louis Fruit Garden, June 1858.

(For the Valley Farmer.)

LAYERING ROSES.

The present month is the best time to perform this operation. Those who wish to increase their stock of choice kinds, either to extend their own plantations or to have a few spare plants for a friend, will find layering to be the simplest and best method of propagation, especially applicable to such kinds as do not grow readily from cuttings, or do not sucker freely. Such are many of the annual or June roses, the hardy remontants and the climbing or prairie roses. The kinds that strike most readily from cuttings are the Bourbon and China classes, and those which sucker most are the briar class and some of the annual kinds.

Layering is performed in the following manner: First. Prepare the ground around the plant or "stool," to be layered from, by digging or forking the soil, so as to make it loose and fine; then if your soil is not favorable for the emission of roots, by a layer or cutting—have ready a compound of half sand and half leaf mould, mixed together. Also have ready some hooked pegs, four to six inches long.—Then take a strong shoot of the current year's growth—bend it down and see where it best comes into the ground, trim off the leaves along that part, close to the shoot. Then at the point of the greatest bend in the shoot, with a sharp knife, make an oblique cut, half way through the wood, and right at a joint, commencing on the under side of the shoot nearest the base, and cutting upwards. Next scoop out a hole about three inches deep, put in a handfull of the compost. Take hold of the base of the shoot with the left hand, and the point with the right; bring the point up, so as to open the cut or tongue without breaking, and gently press it down into the earth in that position, and keep it so by means of a peg, placed below the cut. Cut off the point of the shoot that is soft and unripe and leave but two or three buds out of the ground; fill up around the layer level with the soil, press it firm and the work is done.—Proceed in the same way with as many as you want to make.

The philosopy of layering is, that while the layer derives nourishment or "lives" on the parent plant, it is forced to the emission of roots, by the arrest of the returning sap, at the cut part. This sap first forms a callose at the tongue, which soon is converted into roots, and becomes an independent plant, and at the proper time may be separated from its parent, and planted by itself.

Layers of the rose, however, should not be taken up till fall, when the leaves have dropped, or till the folllowing Spring.

CAREW SANDERS.

The Home Circle.

WOMEN AND MACHINERY.

We mean no discredit to woman by associating her with machinery. On the contrary we mean honor to her. We mean that she must look to machinery in part for her elevation and improvement. Machinery helps the farmer and mechanic; why not their wives. Machinery does much of the work of the farm and shops, why not of the kitchen? Machinery prints, travels, saws, mows, reaps, threshes, grinds, shells, plants; why not make it sow, wash and cook? We believe in machinery in the house, as well as on the farm. We believe in home conveniences and comforts; in labor-saving contrivances for every part of the house. Instead of the everlasting drudgery of the old-fashioned needle, let the sewing machine be introduced into every family, and let all the female members learn how to work it. And no harm will come if the men and boys learn to work it. Then how easy will the sewing for the family be done up. No cramping of the chest, no bending of the back, no straining of the eyes, no sitting all day in one confined position, no sitting up till midnight. All can run the machine, and it will only be sport to make a pair of pants or a child's dress while waiting for dinner. We believe as much in the sewing machine as we do in the steam engine, the telegraph, and the mower-and-reaper. Yes, and a great deal more, for this is for all the people, for all families and classes of society.

So we believe in Wisner's Washing Tub. It is a grand cleanser of all things dirty in the shape of clothes, without the everlasting back-breaking, knuckle-peeling process of scrubbing. At least one half the labor of washing in the ordinary way may as well be saved as not. Let a labor-saving soap be made of five pounds of bar soap, four pounds of sal soda, half a pound of borax and one ounce of ammonia, dissolved in twenty-five quarts of soft water, in a suds of which the clothes should be soaked over night, then boiled twenty minutes, and rubbed in Wisner's Tub five or ten minutes, and well rinsed, and they will come out clean, white, unworn, with less than half the ordinary labor and time spent in washing. Every family should have this soap and Tub. The tub was designed for the use of the ordinary kinds of soap; but this is so much better that it should come into general use till something better shall be found.

In every kitchen of a large family, there should be a good cooking range. The saving of labor and fuel over the ordinary ways of cooking is very great. Where coal is burned, the saving is greater. They can be got of all sizes, from one sufficient for a small family to one equal to the wants of the largest hotel. C. F. Whorf, St. Louis, can answer all orders or questions concerning cooking ranges. Apply to him for information, all who are building houses. Make the cooking room convenient if possible. Save time and labor. Franklin said "time is money." We say labor is more.—Save both. Then women will have time to read, improve themselves, teach their families, keep their husband's books and in many ways be useful that they now dream not of. Give women a chance to improve with men and both will be benefited, and their children give them honor.

HOW TO EAT.

To eat is a necessity, and the Author of our being has kindly made it a pleasure. We live by eating, yet we may die by it. It is not enough to eat anyhow; we must eat somehow. There is a way to eat. There are rules for eating which if we obey we get the profit and pleasure of eating.

1st. We should eat plain simple food. Rich food is injurious, whether people feel any particular harm from it or not. Sour or heavy bread, short pastry, rich gravies and condiments, spices, sharp, savory dishes as mustard, pepper, horse-raddish &c., lard, tallow, the fat of animals, oil, are to be avoided. Plain meats, vegetables, breads and fruits should constitute our entire food. To disregard this rule is to suffer, sooner or later, is to begin to die while we try to live.

2d. Eat at regular times. Eating without regard to time, nibbling a little now and a little then, between meals, or whenever opportunity offers, is not the thing. It is a perpetual wear and tear on the stomach. The stomach wants rest and must have it or it will fail. When it disposes of a good meal it has done a good work, and wants to rest awhile. It takes from three to five hours for this work. An hour's rest ought to be given it. Hence once in six hours is often enough to eat. Three meals a day is enough for summer days, two for winter.

3d. Masticate food well. There is something in chewing. Teeth were given for use. They are grinders, natural mill-stones, from which the food should go well masticated. Men are

not birds. They have no gizzard within them for pulverizing purposes. They must grind or suffer. Never swallow till all is converted into its proper consistence for the stomach. Never bolt food. Chew it well is the law. Suffer if you do not is the penalty.

4th. Eat slowly. There are no new modes of eating. Adam's old way is ours. There are no steam processes for this old fashioned work. Science has not improved upon the old plan.—Man hath sought out many inventions, but none that help the matter of eating. So work on the old way and eat slowly. Take more than five minutes for a full meal. Half an hour is little time enough.

5th. Eat only enough. The stomach is not made for a bladder to be stuffed. Enough is enough. More is worse than less. An overloaded horse soon fails; so with an overburdened stomach. Ever eating breeds disease, famine, vice and misery. Some eaters are like some preachers, they know not when to stop.—Appetite is not the proper judge of quantity. Appetite has to do with flavor, not quantity or quality. The kind and quantity of food are to be determined by judgment. Men generally over-eat. Observe the rule, eat only enough.

HOME.

Home, it is a little word; it has its own interests, its own laws, its own difficulties and sorrows, its own blessings and joys. It is the sanctuary of the heart, where the affections are cherished in the tenderest relations—where heart is joined to heart, and love triumphs over all selfish calculations. It is the training school of all tender plants which in after years are to yield bowers and fruits to parental care. It is the fountain whence comes the strains which beautify and enliven social life.

If any man should have a home, it is the man of business. He is the true working man of the community. The mechanic has his fixed hours, and when those have run their course, he may, ere the day closes, dismiss all anxiety as his labor ends, and seek the home circle. Comparatively little has been the task on his mind, and not much more on his physical system, as he learns to take all easy. But the man of business is under a constant pressure. His is not a ten hour system, with an interval of rest, but he is driven onward and onward, early and late without the calculation of late hours. He must be employed. In the earnestness of competition—in the complexity of modern modes of business—in the solicitous dependence on the fidelity and integrity of others—he has no leisure moments through the day. With a mind incessantly under exciting engagements, and a body without its appropriate nutriment, he may well pant for home, hail the moment when he may escape from its toils to seek its quiet, and its affection and its confidence.

[Written for the Valley Farmer.]

EDUCATION.

BY MISS M. A. G.

An education, though it has long been deemed important, has never been as much so as at the present time, for as the facilities for procuring it have increased, in just such a measure has the necessity of it been made greater, and without it, it is now impossible to fill a useful place in society. It is believed by some that an education consists only in improving the mind, by perusing the works of learned men, or studying from the exhustless book of Nature, but though important, this is but a part, for besides the cultivation of the mind, we must educate the hands and the heart, before the great work of our education can be completed.

The education of the hands, though not the least important is perhaps the simplest, for even children can be taught in the school of industry, and there are none, however situated in life, but, by teaching the hands to perform their office, may labor for their own good and that of others, and though to some, work may seem degrading, yet without a knowledge of it, no one is truly fitted to perform the great duties of life.

There are but a few (comparatively speaking) in this enlightened age who do not feel the necessity of cultivating the mind, and of learning from the thoughts and experience of others those things which will prove for their benefit. The present is the golden age of literature. Learning in all its departments has reached a height before unknown, and especially in our own happy country, all who desire may attain, at least some eminence upon the "Hill of Science;" and it is strange, though true, that some would prefer remaining in gross ignorance to the enjoyments that are found by rightly educating the mind. To the youth of the present day, there are strong inducements to press forward in the attainment of knowledge, for ere many years have elapsed those who now fill the offices and perform the duties of society, will have passed away and others will be called to fill their places. Let us then, instead of spending the bright hours of youth in a giddy round of pleasure, follow the dictates of a nobler ambition, and strive to prepare ourselves to act well our part in life's great arena.

But though we may train our hands to industry, and with the deepest truths of science may enrich the mind, yet if the education of the heart is neglected our labor is all for naught. Our hands, our minds are to be prepared to act for life, but our hearts are to be fitted for eternal action, our immortal spirits for a life unending, and while we are living on earth, and striving faithfully to perform life's duties, let us obey the teachings of the Holly Spirit, and fail not to have our hearts prepared for a happy existence after death.

The Young Folks' Page.

SUMMER.

Children love the summer. It has a thousand opportunities for pleasure. It has long days, flowers, fruits, birds, pleasant groves and very many agreeable things. Summer is the real *growing* season of the year. Among all the plants and animals it is the working season. They are all doing their best to make a rich harvest.

Summer represents youth and early manhood. Young people are in the summer of life, when the bright warm days are upon them. It is their time to *grow*, in wisdom, in knowledge, in virtue, in goodness, in love. Now they should grow to be full men and women, to be generous, noble-minded, honest, trusty, intelligent and useful. It is their working time. They are learning how to be great and good. They are using their hands and their heads. In their summer days they should work hard and well that they may have a rich harvest in old age.—Let all young people look forward to middle life, and ask what shall I be when I am old?—shall I be good or bad?

What Will That Boy Do?

Who will tell; The boy that reads this, what will he do? When he becomes a man, will he do manly things? Will he read, and so be intelligent, be useful, healthy and of a strong body? Will he pray and so be pious, good, and of a strong soul? Will he write and so be graceful in speech, ready in communication and of a strong influence? Say, my boy? What are you going to do? What you like to do now you will be very likely to do by and by. Do you swear now? Do you cheat, deceive, lie, steal? Do you do dishonorable things? Remember, the boy makes the man. If the boy is bad the man will be, if the boy is good the man will be. Fix it in your mind which you will be.

GOOD HUMOR.

Nothing is better for ones health and happiness, than to be always in a good humor. At home and abroad, it is equally pleasant and profitable to be good humored. It is not enough to be in a good humor among ones friends in society, or when one has company; but it is the grand essential of every day home life. Good humor is not a holiday sportiveness, a sunday garment, a christmas joy only. It ought to be the perpetual music of the flow of life's stream. All the day long and all the year round it is well for us to be in good joking order, turned up for joy and spirit. Away with all moping melancholy. It is like mould on the wall, or dampness in the house, or a funeral at a friend's. Away with it. It is a torment, a blight on all fair prospects, and eclipses all beauty. Let good humor prevail, and health and happiness follow.

[Written for the Valley Farmer.]

LETTER WRITING.

I hope my young readers will indulge me in submitting a few thoughts upon the subject of letter writing. Most of you, no doubt, have learned the old adage, that every beginning is difficult—in every art and science—in every business of life we meet with difficulties in the beginning. The lawyer and the doctor have to devote years of study to acquire a knowledge of their respective professions. The mechanic and the blacksmith have to undergo a long apprenticeship to become good workmen. Young folks must expect to meet with difficulties, as they are just beginning to enter upon the active duties of life. In writing letters the style should be plain, correct and familiar, just such as we would use in a face-to-face conversation. Many young persons are at a loss in the commencement of a letter because they wish to use high-sounding words, when they do not suit the thoughts which they desire to express.—This is wrong. Just think what the person to whom you are writing would wish to know, and endeavor to communicate it in plain, correct language. The little girls certainly can find material enough in writing about the health of the family, and neighborhood, their progress in learning—the current news—the arrangement of the house and garden, for a letter of ordinary length; while the sons of farmers—in addition to all I have mentioned--might add the price of stock in the neighborhood—the condition and description of stock upon the farm—the prospect of the crop growing—the yield of that already made, and other matters of similar character. Young persons should cultivate a chaste, correct style of writing, avoiding all vulgar, common-place sayings—and recollect that an agreeable, correct style, introduces the writer as effectually to the notice and attention of the reader—as a courteous, polite, respectful bearing and deportment introduces a boy or girl into society.

W. H. Campbell.

Amacitia, Ky.

Editor's Table.

REMOVAL.

The Office of the Valley Farmer in St. Louis, has been removed to the South-east corner of Chesnut and Second streets, immediately over the POST OFFICE, 3d story.

TO SUBSCRIBERS AND CORRESPONDENTS OF THE VALLEY FARMER AT THE LOUISVILLE OFFICE:—The state of my health requires that I should seek a change of climate during the present summer. All persons, therefore, in writing communications and notices of Fairs to be held in Kentucky, intended for the Valley Farmer, or matters of enquiry requiring public answers, or private letters designed for me, will, for the present, direct them to the undersigned at Sag Harbor, Long Island, N. Y. All subscriptions and any notices of failure of the Farmer to reach subscribers, may be directed as usual, to the Louisville office, where they will be promptly attended to.

H. P. BYRAM.

Valley Farmer Office, Louisville, June, 1858.

The Weather and the Crops.

Since we made up our last report upon the condition of the growing crops, heavy and disastrous rains have continued to fall, flooding the country from the Atlantic to the Rocky Mountains. Wheat, which was threatened with rust, seems thus far, quite generally to have escaped, owing to the generally low temperature of the atmosphere, but upon most level lands throughout the west wheat and oats have been otherwise greatly injured by being beaten down and flooded. The extent of the loss to the wheat crop, at this date, cannot well be estimated, though in many sections its destruction has been entire, while in others there will not be realized more than half a crop. Other crops have suffered greatly. Potatoes, where they have not been entirely drowned out, will recover, but the corn crop, through a large portion of the West, particularly upon the more level prairies, has either been entirely destroyed or most seriously injured. Upon all the western river bottoms, the destruction of the corn crop has been complete. These extensive bottoms, unparalelled in fertility, are the chief sources of the supply of corn to the West.

The cotton and sugar lands of the South, which were overflown some weeks ago, are again under water, even to a greater depth than before, cutting off all prospect of making anything the present season on these lands. Before the waters subside from any of these overflown lands, whether in the West or South, the season will be too far advanced for replanting with corn, leaving millions of acres that have been planted entirely unproductive.

In the East, from whence we write, although the rains have been general and heavy, the crops have suffered comparatively little, owing to their being more backward, and the lands generally less liable to injury from this cause.

The prospect now is that the worst is over, and that more seasonable weather will follow.

Non-fulfillment of Appointments.

After fulfilling the appointments to lecture on Agriculture, which appeared in our May number, we made out and published another list, but were able to fill only a part of them. The continued heavy rains caused the streams to overflow their banks, washing away many of the bridges, and we found it impossible to proceed further than Huntsville, leaving our appointments unfilled at Keytesville, Brunswick, Pleasant Park, Carrollton, Round Grove, Richmond, Crab Orchard, Liberty, Barry, Platte City and Weston. We very much regret that we were prevented from filling these appointments, as we were anxious to visit this portion of the State, and become better acquainted with its agricultural capacities. However, at some future time we shall take pleasure in speaking at these places, and also in visiting other portions of the State, for the purpose, if possible, of increasing that spirit for agricultural improvement which is now beginning to manifest itself throughout the country. Since our return we find that several of our exchanges are urging the farmers to be present at our lectures, and we very much regret that they will be disappointed by reason of our absence. The "Platte City Atlas," published at Platte City, Mo., contains the following flattering notice of our appointment at that place, which we copy on account of the excellent remarks it makes in regard to the prejudice existing against "book farming:"

"NORMAN J. COLMAN, Editor of the Valley Farmer, of St. Louis, will lecture at this place on the 23d inst., on Agriculture. Mr. Colman has started from St. Louis to visit the greater portions of the State and become better acquainted with its citizens and agricultural capabilities. He has been lecturing in the counties on both sides of the Missouri, and takes Platte in the course of his tour. We consider the "Valley Farmer" one of the best agricultural journals in the United States—one of the very best. Its publication in Missouri we consider an honor to our State.

"Mr. Colman is an untiring and thoroughly competent editor, and his exertions to raise the agriculture of Missouri out of the slough of do-nothingism, are worthy of all commendation. Farmers generally, have an entirely erroneous opinion of agricultural journals, and what is called book farming. They suppose it is entirely theoretical, and based upon sciences only practiced in the closet of the student, or in the laboratory of the chemist, by men who never held a plow handle or sowed an acre of grain, and that agricultural journals are supported for the purpose of selling Yankee churns, and worthless pigs and cattle at exorbitant prices. Nothing is farther from the truth. Though all scientific farming must be based upon vegetable physiology and chemistry, yet these sciences are still in their infancy, and are not yet practically applied to any great extent. The mass of contributors to the "Valley Farmer," and every other good agricultural journal in the United States, are shrewd, sensible, practical farmers. These men feel the necessity of comparing their experience with that of their fellow farmers. They wish to test the opinions of others and have their own disseminated in the community. There is very little that appears in the columns of the Valley Farmer unworthy of the attention of a practical man. Let us give Mr. Colman a good reception, and also increase the number of his subscribers. The 23d will be an admirable time to lay before the people the subject of a county fair. Will it be done?"

Agricultural Festival.

The Marion County, (Ill.,) Agricultural and Mechanical Association have determined to have a festival at Salem, on Saturday, the 3d day of July, in celebration of the Anniversary of our Independence. Preparations are being made to render the occasion exceedingly inter-

esting and attractive. The St. Louis Editor of the Valley Farmer has received an invitation from the Society to deliver the address on the occasion, for which honor he returns his sincere thanks, and promises to be present. We hope to see the farmers of Marion and surrounding counties out in full force.

Our Lecturing Tour.

We have just returned from a long lecturing tour through Western Missouri. On account of the heavy and almost constant rains our audiences were not as large, generally, as we anticipated at the time of making our appointments. The farmers could not well come through the rain, and if such a rare thing as a fine day did occur, their services were needed on the farm, as the farming operations were never more retarded than during the past season. However, such was the interest felt in the cause of Agriculture that, notwithstanding the unfavorable weather, we had generally, good audiences, comprising the most enterprising and intelligent farmers in the vicinity of our appointments. The chief object of our tour was attained. That object was to become better acquainted with the farming capabilities of our State—to see the system of farming pursued—the crops, soil, stock, &c., that we might better know the wants of our readers, and furnish such matter through our journal as would be of most benefit to them.

We have nevor visited a finer country for agricultural purposes than that through which we have just traveled. The soil is uncommonly fertile, the prairies high and rolling, containg generally, timber sufficient for farm purposes. We visited some of the best hemp lands, probably, in the world; and when land will produce good hemp, it will produce almost anything that the farmer may wish to raise.

Considering all things, we had a pleasant trip. We enjoyed the kind hospitalities of many readers and felt at home whenever we tarried with any of the Valley Farmer Family. We find that we have not space this month to speak in detail of our visit, but at some future time may do so.

For the kind attentions shown us we return to one and all our sincere thanks. To the gentlemen of the Press we are under very great obligations. They kindly announced our appointments, urged the farmers to attend our lectures and would receive no compensation therefor. This is sufficient evidence that they feel interested in the welfare of Agriculture, and that they are laboring to advance the agricultural interests of our State.

Educational.

We feel a lively interest in everything pertaining to the education of the young, and shall at all times take pleasure in obtaining teachers for schools or families. Two young ladies of experience in teaching desire situations as teachers either in a seminary or in private families. They are qualified to give instruction in French, German, Italian, and the higher English branches and are recommended to us as being accomplished teachers. Another young lady of our acquaintance desires a situation in a family. She is an excellent teacher, well qualified to impart instruction in all the higher branches of English education.

For further particulars address Editor of Valley Farmer, St. Louis, Mo.

Break the Crust.

The heavy and almost constant rains that have fallen for two months past have operated much against the proper cultivation of hoed crops. These rains must soon cease and dry weather will follow. Much of the corn that has been planted has rotted in the ground, and it behooves every farmer who has any that has escaped destruction to give it early and constant cultivation; timely work and warm weather will bring the crop forward with astonishing rapidity. As soon as the ground is dry enough to allow of working, the plows or cultivators should be put in motion and never cease until the surface is thoroughly pulverized. A mellow surface is sure protection of the corn crop against drouth. Well directed labor will now insure a crop where the rains have not swept off the young plants.

The Floods.

Great destruction has been caused by the high waters of the past month. The very fertile and productive land opposite St. Louis, on the Illinois side, and extending many miles below, was covered with water to the depth of several feet. The current of the water was strong and immense damage has been done to the farmers residing there. Fences and buildings were swept away, animals drowned, and the present year's crop entirely ruined. St. Louis has been dependent to a considerable extent, upon the bottoms for her market vegetables, &c., but none will be raised here this year. The effect of this, will doubtless be to raise the price of vegetables, &c., in the St. Louis market. It will take the farmers of the flooded region a long time to recover from the heavy losses they have sustained the present season.

The Illinois State Fair.

By a mistake of the printer we are made to say, in our June No., that the Illinois State Fair will be held on the 24th of September—we wrote 14th, at which time it will be held. The most ample arrangements are being made for the accommodation of visitors, and the exhibition promises to be by far the finest ever held in Illinois. It immediately succeeds the great St. Louis Fair, and much of the stock exhibited at the latter place will also be exhibited at the Illinois State Fair. Let these two exhibitions be worthy of the Agricultural, Mechanical and Manufacturing interests of the great West.

THE HORTICULTURIST.—From an advertisement which appeared in the June number of the Valley Farmer, it will be seen that in future the Horticulturist is to be published in New York, by C. M. Saxton, 25 Park Row. Mr. Saxton has long been a publisher of agricultural and horticultural books, and from our intimate acquaintance with him we feel assured that the work has fallen into good hands, and its former character will be fully sustained. This work was established ten years ago by the lamented Downing, as editor. It is, we believe, with one exception, the only work published in the United States exclusively devoted to Horticulture; and from its past history and what we now have reason to hope from it, it should have a wide and extensive circulation. There are hundreds of thousands living in the rural districts of our country who would be profited by becoming immediate subscribers to it.

XUM

Enquiries.

A correspondent asks the following questions, and requests some of our "intelligent readers" to answer them, viz:

1st. What will prevent wireworms from destroying corn after it is planted?

2d. What is a certain cure for ringbone?

3d. What is the cause and the best cure for scours in colts?

4th. He furthers asks S. C. C., whose article appears in the April number of the Valley Farmer for 1857, how he would proceed to give a coat of tar to seed corn and not have it stick together, so as to plant with facility?

5th. What are the dimensions for a ditch for underdraining, and what are the cheapest tile to use for an experiment, to determine whether it will pay to drain land?

As our intelligent readers are requested to answer the first three questions, we will leave the matter to them; the 4th and 5th we will answer:

By adding warm water to the tar intended to use on seed corn, it may be so reduced in consistence as to give the seed the slightest coating, which, after bing rolled in lime or plaster, may be handled and dropped with as little inconvenience as dry corn.

In answer to question 5, we will state that, in land draining, the ditch at the top is made sufficiently large for a man to stand in, while the last foot in depth is removed with a long, narrow spade, leaving the ditch not more than six or eight inches wide for the narrow tile. Tile may be made at any brick yard and burned with the brick, which will enable our correspondent to make an experiment to see whether it 'will pay' or not, These tile may be made one inch thick, six inches wide and eighteen inches long, placing two together at the top and leaving them four inches apart at the bottom. But for systematic and profitable draining, a tile moulding machine is necessary.

As we are about visiting some farms upon which as much money has been expended as the first cost of the land we will give, in a future number, some important information on the subject, which will convince many who have wet lands without going to the trouble of making any preliminary experiments, that draining will pay.

TRANSACTIONS OF THE NEW YORK STATE AGRICULTURAL SOCIETY.—Our thanks are due to Col. B. P. Johnson, Secretary of the N. Y. State Agricultural Society, for a copy of the transactions for 1856, it being the sixteenth volume. From a hasty glance at the contents and arrangement of the matter we are inclined to pronounce it one of the best of the whole series, and in saying this we may as well say that, from the first to the last we do not hesitate to pronounce them the most valuable works of the kind that have been published in this country. The experience and rare qualifications of Col. Johnson, admirably fit him for the position he occupies. If the Farm School of New York is as well conducted as the business and public exhibitions of the State society, have been thus far, it will be the most valuable institution in the great State of New York. The Transactions contain several valuable papers which we shall be pleased to lay before our readers.

PRESERVING FRUIT IN AIR-TIGHT JARS.—Our correspondents who ask for information on this subject, will find their questions fully answered in the proper department in this number, also a description of a new style of glass jar, manufactured at the Louisvile Glass Works. This jar possesses advantages over any other style that we have seen, it being easily closed, less liable to admit air and spoil the contents, and it is easily opened and the jars saved for future use, while tin is worthless after the first filling.

THE IOWA FARMER has been transferred to Mr. Hiram Torrey, who has changed its name to the "Pioneer Farmer and Home Visitor." Gen. Wilson, the former editor, has been appointed Secretary of the Agricultural College of that State, which has recently been established at Fort Desmoine.

Swill Milk.

Frank Leslie, in his famous Pictorial, has done some good service in behalf of the good people of New York city, in exposing the disease that universally prevails among the cows fed on distillery slop in and about the cities of New York and Brooklyn. The subject as exposed by Mr. Leslie, has led to an investigation before the Mayor of New York. The testimony in the case proves that a great number of the cows are confined in narrow, filthy stalls, in stables poorly ventillated, and are fed exclusively on this still swill, and that in a short time they become greatly diseased, filled with ulcers, and so weak that they require to be held up in order to milk them. A practice prevails among these dairymen of innoculating the cows with the virus from those having a peculiar disease incident to this peculiar mode of feeding, in order to render the disease less violent, and the consequence is that a large number of these cows so innoculated loose their tails, if they do not die, and hence these miserable animals are known as "stump tail cows." For years past extraordinary mortality has prevailed among the young children in New York, and this has frequently been attributed to the unhealthy milk furnished by these nurseries of disease and death. Proof before the Mayor was conclusive in several cases that the sickness and death of children had arisen from the use of this swill milk. Mr. Leslie has not only given the names of the owners of these filthy establishments, but also the names of all who have been imposed upon by the sale of this diseased milk.

These cases are not yet fully decided, but the committee which was appointed to investigate the matter, have adjourned Sine Die, and a full report will be made at the next regular meeting of the Board of Health.

ANOTHER GREAT NATIONAL HORSE SHOW.—Preparations are making for another great horse show to come off again at Springfield, Mass., beginning on the 14th of Sept. 1858, and continuing four days.

WHAT ENGLAND PAYS IN ONE YEAR FOR MANURE.—It is estimated that England pays annually three hundred millions of dollars for manure, more than the entire commerce of that country. The total value of a year's crop has been reported to Parliament, some time ago, as being about three thousand millions of dollars, the crop includes the animal as well as the vegetable. The turnip crop has been estimated in that kingdom, including their entire utility, to be worth fifteen hundred millions of dollars.

Strawberry Market in Cincinnati.

Cincinnati, we believe, is the greatest strawberry market in the world. In one day, in the beginning of the strawberry season, seven hundred and fifty bushels of strawberries were brought into that market. After supplying the home demand the growers send large quantities to St. Louis, Chicago, Milwaukee, Detroit, Buffalo, Wheeling, Louisville, and other cities. Supplying northern cities with strawberries and other fruits we regard as a legitimate and laudable enterprise, but for Louisville to look to Cincinnati for strawberries does not speak well for the enterprize and intelligence of our gardeners. We have watched our strawberry market with some interest during the present season, and have found but few strawberries that were well grown, furnished by our own gardeners, while the great mass in market were from Cincinnati, generally of the largest and most perfect growth, and while our own home grown fruit, small and inferior, fresh from the vines would bring but 50 to 75 cents a gallon, that from Ohio, two or three days old, would readily sell at 75 cents to $1 and upwards per gallon. We certainly possess better natural advantages for growing this delicous fruit than our neighbors of Ohio, and rather than be supplied by them, we should not only meet the demands of our own market, but send hundreds of bushels to the more northern cities.

Missouri State Teacher's Association.

Among the instrumentalities which have been so efficient of late years in giving to the cause of popular education, the powerful impulse which it has received, one of the most prominent has been the assembling together of practical teachers, for the discussion of matters pertaining to their high vocation. Improvement in the teaching imparted in our schools must come directly from the teachers. Whatever discovery in principle may be achieved by thinkers, or improvement in practice suggested by them, it is of no avail until the practical educator brings it forth in the school room. We do not take the conceited and silly position that no hints and suggestions, or even vital principles, of practical value in education, can come from men without the profession—from those who view the teacher's work from a different stand-point than their own. We do not forget that some of the mightiest educational reforms of our age, have been suggested by the far-seeing judgment, and carried into effect by the energy and perseverence of men whose active life was among other pursuits. But we say that all this can only be realized by the teacher. Where his co-operation cannot be secured in applying great principles and in carrying out useful suggestions, they will but slumber in the brain that conceived them, or die upon the lips that proclaim them.

Wherever, then, the cause of education is to make any progress, whenever methods are to be improved, or systems to be perfected; whenever the public sentiment is to be aroused in behalf of schools, there must the teachers have a mutual understanding, and concert of action, and as a means to this end, must have meetings for mutual consultation upon the best means for elevating the profession and making it more effective in the service of the public.

We rejoice, then in the fact that years ago the teachers of the State of Missouri organized themselves into an Association, having the above purpose in view. Such an organization is one of the necessities of the times. Missouri can only secure a future worthy of a great State by a careful fostering of her public schools, and by constant improvment in their character. And, as we have just seen, such improvement can only be secured by careful thought and earnest consideration among the teachers themselves.

The approaching meeting of the Association at Jefferson City, to commence on Tuesday, July 6, promises to be one of considerable interest and importance. By the programme of exercises published below, it will be seen that many important questions are to come up for discussion. Let every earnest teacher go up to this gathering of his brethren and give the profession the benefit of his experience.

But the meeting is not to be confined to teachers. As we have said, we do not hold to the close communion principle in the matter of educational progress. Let every one who feels the slightest interest in popular education, and who that has the real welfare of the State at heart, does not feel such interest?—let every man who feels an interest in the cause, go up and contribute of his abundance or of his mite to the interest of the occasion. County Commissioners, members of the other professions, editors of newspapers, parents of children, and in short, men of all positions and honest occupations, however incongruous their meeting elsewhere might appear, may here meet with eminent propriety, for deliberation upon a subject in which all are vitally concerned.

MISSOURI STATE TEACHER'S ASSOCIATION.—This body will hold its annual convention in Jefferson City, on the 6th, 7th and 8th days of July 1858. A preliminary meeting of the delegates will take place on Tuesday, the 6th, at 4 P. M.

ORDER OF EXERCISES.

TUESDAY.

Evening—Address by Hon. J. B. Gardenhire, Mayor of Jefferson City, and W. H. Lewis, President of the Association.

WEDNESDAY.

Morning—Discussion—Co-education of the Sexes; Text Books.

Afternoon—Address by Thos. J. Henderson, of Jefferson City; also Reports of Committees.

Evening.—Address by Richard Edward, Principal of the St. Louis Normal School.

THURSDAY.

Morning—Election of officers; Discussion—Normal School.

Afternoon—Discussions—Phonetic system; Public Examinations.

Evening—Address by Prof. J. W. Southerland, of Jefferson City.

County Commissioners and friends of education generally are invited to attend.

Free return tickets will be given to the delegates by the Pacific, North Missouri, Iron Mountain, Ohio and Mississippi, St. Louis, Alton and Chicago and Terre Haute and Alton Railroads.

By order of the Executive Committee,

J. H. REED, Secretary.

PREMIUM LIST---ST. LOUIS FAIR.

The St. Louis Editor, who is the Corresponding Secretary of the St. Louis Agricultural and Mechanical Association, sends to such readers of the Valley Farmer as he thinks will be interested in perusing it, the Premium List of said society. In extent and variety of premiums it will be found to surpass anything of the kind ever offered in the United States. The Fair, which will commence on the 6th of September and continue one week, promises to be the most brilliant and successful one ever held in any country. Visitors and exhibitors from nearly every State in the Union will be present. We believe that our friends in the country would spend a pleasant and profitable week during the Fair. Come one, come all, and see the finest stock, the best implements and machines, the most beautiful fruits and flowers, the most charming works of art, and ten thousand other things that we have not time or space to speak of.

We append a list of the names of the

OFFICERS OF THE ASSOCIATION.

J. R. BARRETT, PRESIDENT.

THORNTON GRIMSLEY, ANDREW HARPER, H. CLAY HART, } VICE-PRESIDENTS

HENRY S. TURNER, TREASURER.

GEO. KALB, GEN. AGENT AND REC. SEC'Y.

NORMAN J. COLMAN, CORRESPONDING SEC.

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CHARLES L. HUNT,	HENRY T. BLOW,
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JOHN SAPPINGTON,

Valuable Tract of Land for Sale.

I have 1120 acres of land, situated in Pettis county, Mo., within one half mile of a depot on the Pacific Railroad, which I will sell at Twelve Dollars and a Half per acre, one fourth cash and the balance on time, with interest. There are 300 acres of the tract in timber, and the balance is high, rolling prairie of the best quality. It is admirably adapted for a stock farm, being well watered. This tract lies twelve miles west of Georgetown, the county seat of Pettis co., on the road leading to Knobnoster, and five miles from the latter place.

GEO. M. PEMBERTON.

July '58 Fairview P. O Pettis county, Mo.

Emery's Journal of Agriculture.

THE SECOND volume of this new and popular Western Journal will commence July 1st., 1858. It is the aim of the publishers of this Journal to make it a Fair, Full and Reliable exponent of Western Farm Interests—a channel for the dissemination of such information as is best adapted to the wants of the North Western farmer, embracing the experiences and experiments of our oldest and newest farmers. The Eastern man, who intends coming West, will find it valuable; those who have Western interests and Western friends will find it just what they want.

The year will be divided into two volumes of six months each, with a full index at the end of each.

TERMS—$2 per year, or $1 per volume, in advance. Clubs at reduced rates.

☞ Send for a single volume at once and see for yourselves.

Sample numbers sent gratis on application.

EMERY & CO.,

July 2t. 204 Lake street, Chicago, Ill.

Fairs in Missouri for 1858.

St. Louis Agr. and Mech. Association, Sept. 6 to 12.
N. E. District, Paris, Sept, 13 to 18.
Howard Co. Agr. Soc., Fayette, Sept. 14 to 18.
Pettis Co., " " Georgetown, Sept. 14 to 17.
Lafayette Co. " " Lexington, Sept. 14 to 18.
N. W. District, " St. Joseph, Sept. 21 to 25.
Saline C., " " Miami, Sept. 21 to 24.
Boone Co., " " Columbia, Sept. 30 to Oct. 2.
Central District " Boonville, Oct. 4 to 10
Morgan Co., " " Sept. 28 to Oct. 1.
Marion co., " " Oct. 12 to 16.
Chariton co., " " Sept. 27 to 30.
Calloway co., " " Sept. 21 to 25.

FAIRS IN ILLINOIS.

Illinois State Fair, Centralia, Sept. 14.
St. Clair county fair, Belleville, Sept. 1 to 3.

Will the Secretaries of State and county societies inform us of the time and place of holding their fairs this fall, so that they may appear in this list?

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Suffolk Pigs.

The undersigned has several pair of superior Suffolk Pigs to sell, which he offers at fair prices. They are not surpassed in the United States for purity of breed. Those wishing to purchase are respectfully invited to call and examine them, five miles west of St. Louis, on the Olive street Plank Road, or address

CAREW SANDERS,
Box 708, St. Louis, Mo.